THE CHAUTAUQUAN

APRIL, 1881.

A MONTHLY MAGAZINE DEVOTED TO THE PROMOTION OF TRUE CULTURE.
ORGAN OF THE CHAUTAUQUA LITERARY AND SCIENTIFIC CIRCLE.

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REQUIRED READING.

HISTORY OF THE WORLD.

CHAPTER XLV.

THE ROMANS: FROM THE DEATH OF JULIUS CÆSAR TO THE ESTABLISHMENT OF THE ROMAN EMPIRE.

The assassins of Cæsar seem to have had no plans for the future government of their country. As they rushed from the Senate House to the Forum, brandishing their bloody daggers, and waving a liberty cap on the top of a spear, they fondly expected that the Republic would reëstablish itself. Instead of that the people stood aghast and irresolute. No master mind presented itself to guide public opinion at that crisis. Cæsar's body was carried on a broken litter to his house. Mark Antony, his consular colleague, escaped. As sole consul, aided by Lepidus, Cæsar's master of the horse, Antony drew funds from the national coffers, and prepared to make himself Cæsar's successor. Rome simply passed from the power of one despot to that of another, or others. Calpurnia, Cæsar's widow, sent him her husband's will, and also a treasure of 4,000 talents, ($6,000,000), of which he made dexterous use.

On the 17th of March the Senate decreed an *amnesty*; an act which confirmed all rights, and left the deed of the conspirators to the judgment of posterity. Antony, however, intended to revenge it on the doers, notwithstanding any and all compromises. He read the will of the deceased dictator to the people, recited his acts of munificence toward them, described his wonderful feats of soldiership, and, when by his oratory he had wrought their feelings up to the highest pitch, "he suddenly lifted the blood-stained robe that covered the mangled corse, and for every rent in the garment pointed to a wound in the beloved form, the struggling tide of fury burst forth at once." The body was carried to the Curia of Pompey, the scene of the murder, and there burned with a funeral pile made up of the benches and tables. Brands snatched from the pyre were borne against the houses of Brutus, Cassius, and their associates, who were obliged either to flee from the city or to secrete themselves. *The attempted revolution had failed.* Antony, surrounded by an armed body-guard of 6,000 men, and ruling by virtue of Cæsar's papers—which he altered or forged at will—was virtually the dictator. "The tyrant is dead," exclaimed the sorrowful Cicero, who had applauded his taking off, "but the tyranny still lives."

Another competitor for supreme power now appeared in the person of Caius Octavius, the nephew and adopted son of Julius Cæsar. He was then but little more than eighteen years of age. "Men are what their mothers make them." His mother, Atia, saw in him the only head of Cæsar's party, and the avenger of his death. "Go, my son," said she, in a hurried letter, "may the gods conduct thee whither thy high destiny calls thee; may they grant me soon to see thee victorious over thy enemies." "The nephew of his uncle" at once assumed the designation of Caius Julius Cæsar Octavianus, and prepared himself to become the dictator's successor and avenger. The legions pledged themselves to his support. Marcus Vipsanius Agrippa, his friend—who was to him what Bismarck is to the Emperor of Germany—doubled his strength and wisdom. Cicero welcomed his return to Rome, as the rival of the hated Antony. Octavian sold all his own property, borrowed money of his friends, paid Cæsar's legacies and claimed his inheritance. The statue of the deified tyrant, under the name of DIVUS JULIUS was set up in the temple of Venus, a ritual was framed for his worship, and the name of the month *Quinctilis*, was altered to Julius, (*July*,) in his honor.

The conspirators were timid and undecided. Porcia, the wife of Brutus, exhibited more boldness and vigor than any of them, and had her counsels been followed, affairs might have had a different issue. The outcome was hastened by the great orations of Cicero against Antony. Like the *Philippics* of Demosthenes, they claim to be "the last indignant assertion of a country's freedom against a daring aggressor." They annihilated the reputation of Antony, broke his power at Rome, and drove him to begin the THIRD CIVIL WAR by besieging Decimus Brutus at Mutina, (*Modena*) in Cisalpine Gaul, December, B. C. 44. He was defeated in two battles, in which Hirtius and Pansa, the consuls, were slain. Octavian, who had been joined with them in command, succeeded to the supreme military authority, imposed his will on the government, and was proclaimed consul on the 22nd of September, B. C. 43. His ambition was as boundless and unscrupulous as his perfidy was smooth and deep. Silence with him was golden, as an instrument of value in attaining his ultimate ends. Actions alone revealed his purposes.

Obtaining legal sanctions for all his deeds—so far as he possibly could—Octavian next came to an understanding with Antony and Lepidus, whose aid he required to crush the "Liberators," Brutus and Cassius. The three met on an islet in the little river Rhenus (*Reno*), near Bononia (*Bologna*), and after a three days' conference formed the SECOND TRIUMVIRATE, (November 27th, B. C. 43,) a self-constituted Board of Three, who were conjointly to rule the State, for the space of five years. Each of the triumvirs agreed to sacrifice one or more of his friends to his colleagues' hatred. Lepidus put his brother Paulus Æmilius, on the list of the proscribed. Antony gave up his uncle Lucius Cæsar, for whom Octavian bartered the life of his "father," Cicero.

The three were simply burglarious assassins, plotting robbery and murder on an enormous scale. No considerations can excuse their atrocious crimes. Three hundred senators, and two thousand knights were proscribed, their property seized, and themselves hunted to death by human blood hounds. Italy was filled with outrage and horror. Cicero refused to continue his flight. "Let me die," he ejaculated, "in my fatherland, which I have so often saved." When the pursuing murderers overtook him, with eyes steadfastly fixed upon them, he offered his throat to the sword. "Many covered their faces with their hands, and their agitated leader drew his blade thrice across it ere he could sever the head from the body. The bloody trophy was carried to Rome, and set up by Antonius in front of the rostra. He openly exulted in the spectacle, and rewarded the assassins with profuse liberality. Fulvia, it is said, pierced the tongue with her needle, in revenge for the sarcasms it had uttered against both her husbands." (*Merivale's General History of Rome, p.* 391.)

Fulvia, wife of Antony, was one of the most gifted, masculine, and intractable of Roman matrons. Her "ambition"—Plutarch remarks in his Life of Antony—"was to govern those that governed, and to command the leaders of armies. It was to Fulvia, therefore, that Cleopatra was obliged for teaching Antony due submission to female authority. He had gone through such a course of discipline as made him perfectly tractable when he came into her hands." Antony himself was a coarse, licentious, ribald soldier of fortune; addicted to buffoonery and dissipation; indolent and inefficient as a ruler in time of peace, but a brave, skillful, and energetic commander in time of war. Indeed, of the science and art of warfare he was a distinguished, if not an absolute master. But the man who aspired to rule the Roman world was himself the slave of sensual appetites and depraving passions. His ultimate downfall was less the work of his great competitor than of his own ignoble vices.

The combined forces of Octavian and Antony at length came in contact with those of Brutus and Cassius at Philippi, Macedonia, in November, B. C. 42. Brutus was in some measure prepared for the result of the conflict by a terrible figure which, the legend says, stood silent before him in his tent at night. When questioned, the phantom replied, "I am thy evil demon; thou shalt see me again at Philippi." The moody Stoic, who placed the highest good in the highest virtue, related his vision at daybreak to the Epicurean Cassius, who placed the highest good in the enjoyment of pleasure, and who demonstrated to Brutus, on scientific principles, the vanity of apparitions. The Triumvirs had over 130,000 men; the "Liberators" nearly the same number. Octavius, who was opposed to Brutus, was defeated. Antony, who confronted Cassius, defeated him. Cassius threw himself on the sword of a freedman, and Brutus—within the course of a few days—was driven to the commission of suicide. *The Roman Republic was buried on the field of Philippi.* A few of its vestments remained above ground, to grace the authority of the sole masters, who thereafter in quick succession, ruled the world by the grace of the soldiery, and the force of their own genius.

A fresh division of the Roman world was now made. Antony took the east, Octavian the west, while to Lepidus was assigned the Roman "Africa." Octavian returned to Rome to direct affairs from the seat of government, and Antony abandoned himself to oppression and licentiousness. At Tarsus, in Cilicia, he cast away the empire of the world to play the despot and the lover with Cleopatra, whom he had summoned from Egypt to explain her conduct. A keen observer of the course of human events, who knew what little things are often the pivots on which the destinies of nations turn, remarked that had Cleopatra's nose been an inch shorter, the whole face of the earth might have been changed. The fascinating queen soon captivated the sensual conqueror. In the summer of B. C. 41, "she came sailing up the Cydnus in a galley with purple sails, rowed by silver oars that kept time to entrancing music. On a couch spread upon the gilded poop, beneath an awning spangled with golden stars, the queen reclined in the attire of Venus, attended by the Graces and fanned by Cupids, with Nereids disporting around, while both banks of the river were fragrant with the perfumes burnt upon the deck. Antony received her as the goddess she personated, supped on board her galley, and became the slave of her caprices, and the minister of her revenge upon her enemies."

Meanwhile, Fulvia was stirring up opposition to Octavian in Italy in the interests of her husband, but was foiled, and was obliged to seek refuge at Athens, where she met Antony, in B. C. 40, and received such harsh treatment from him as broke her spirit and hastened her death. Soon afterward Octavian and Antony were reconciled, and their friendship cemented by the marriage of Antony to Octavia, the half-sister of Octavian. For the time, the combined charms of a wisdom and virtue equal to those of the famous mother of the Gracchi, with a beauty superior to that of the Egyptian wanton, had apparently rescued Antony from his fatal infatuation. The fondest hopes were entertained of future peace and prosperity. The Fourth Eclogue of Virgil is at once the expression of "the groaning and travailing together of humanity," and of the expectation of a golden age of innocence and justice. Many have applied it to the Messiah. Its sentiments, and even its language, seem to have been suggested by the prophecies of Isaiah, and other inspired seers, of the coming and reign of the Lord Jesus Christ.

Sextus Pompeius, son of Pompey, who then held the mastery of the seas, was also added to their alliance. That piratical chieftain feasted the triumvirs on his own vessel, which was moored in the harbor of Misenum. While the banquet was in progress his admiral called him aside and asked:—"Shall I cut the moorings, and make you master of the Roman world?" "Would that Menodorus could do this without my order," was the dubious answer; "such treachery might well befit him, but not a Pompey."

The hollow friends parted. Octavian offended Pompey by repudiating his wife Scribonia, a relative of Sextus; and by espousing Livia, the wife of Tiberius Nero, whom he forced to yield her to him. Antony returned to his adored Cleopatra, and the breach between the three yawned wider than before. Pompey, after various fortunes, was conquered by Octavian; and Lepidus, who ventured to oppose him, was stripped of all power, and contemptuously banished to Circeii. The victor returned to Rome, was crowned with flowers, and received the honor of a golden statue, inscribed "To Cæsar, the restorer of peace by sea and land." Mæcenas, one of his prime ministers, and a great friend of art, science, and literature, did much to consolidate Cæsar's authority by wise and politic administration.

While Octavian was thus in the ascendant, Antony was on the wane. His Parthian expedition proved to be a disgraceful failure. He sacrificed the lives of many legionaries in his haste to return to his enticing paramour. His behavior toward his noble wife, Octavia, was scandalous. She abandoned him to his fate, and the reckless profligate once more plunged into excess of riot with Cleopatra at Alexandria. Octavian, on the contrary, subdued Pannonia and Illyricum, and annexed them to the empire. He metamorphosed Rome, which he boasted that he had found of brick, and left of marble. All kinds of public improvements were effected at Rome with lavish cost; largesses of money and unlimited oil and salt were distributed to the people, public libraries and museums of art were opened, and the services of the barbers were made free to all. This profuse magnificence was intended to strengthen him for the inevitable

struggle with Antony, between whom and himself mutual recriminations soon changed into relentless hostilities. The latter had really ceased to be a Roman. His will was wrested from the custody of the Vestal Virgins, and was found to have acknowledged Cæsarion as the legitimate heir of Julius Cæsar; to have ratified his own drunken donations of crowns and provinces to his bastards by Cleopatra; and to have directed his body to be entombed, together with that of the "beautiful mischief," in the mausoleum of the Ptolemies. War was declared against Egypt, but really against Antony, B. C. 31. He clung to his mistress, divorced Octavia, and broke the last legal tie that bound him to his country.

Preparations for decisive conflict were now pushed forward on a scale commensurate with the prize at stake. The combatants were about to fight for the empire of the world. The vast armies of the East and the West were arrayed against each other on the shores of the Gulf of Ambracia, with a narrow channel, occupied by the fleet of Antony, between them. Desertions from Antony to Octavian were numerous, and he would have transferred the theatre of war to the plains of Thessaly, had not Cleopatra, who feared capture, dissuaded him. The wanton was the bane of his life, and ruined his cause. In the heat of an indecisive naval engagement, the well-known purple sails were spread over the galley of Cleopatra, and the whole Egyptian fleet fled from the scene of battle. It was the execution of a deliberate plan, and Antony no sooner saw the signal than he leaped into a light galley, was received on board her vessel, and joined in Cleopatra's flight. Historians state that he was overcome with shame and remorse, but the Egyptian Delilah had none the less effectually shorn the Roman Samson of his locks. His fleet was captured, his army surrendered, and from the day of Actium, September 2d, B. C. 31, *Octavian was sole master of the Roman world.*

The conqueror reduced the provinces of Greece and Asia to order, spent the winter at Samos, and completed his arrangements at Brundusium for the invasion of Egypt. The year of respite thus granted to the wretched pair was spent in debauchery, in vows to die together, and in experimenting on the poisons by which they might find the easiest death. When Octavian at length besieged Alexandria, Cleopatra—in hope of her life and liberty—treacherously bribed the sailors of Antony's fleet to carry over his ships to the enemy. Then, fearing his resentment, she retired to a mausoleum, where her treasures were stored, and spread the report of her voluntary death. On hearing the news, Antony stabbed himself, as having nothing more to live for. The wound was not fatal, and when he heard that his paramour still lived, he caused himself to be carried to her asylum. The queen and her women drew up the dying man's litter with cords into the upper chamber, where he expired amidst her caresses. She, herself, was soon afterwards arrested, and, when she learned that she was to be compelled to walk in Octavian's triumph at Rome, applied an asp to her bosom and another to her arm. Octavian's messengers found Cleopatra dead upon her golden couch, Isis, one of her women, dying at her feet, and Charmian, the other attendant, feebly *replacing the diadem* which had fallen from her head. "Charmian, was this well done?" angrily said the messenger. "Perfectly well," said she, "and worthy a descendant of the kings of Egypt"—and she too fell down dead. Thus died, in her fortieth year, one of the most wonderful women of all history. Cæsarion was put to death. Octavia, with magnanimity and kindness far ahead of the age, took the rest of Antony and Cleopatra's children, and educated them as her own.

Rome was now triumphant over Hellenism and Oriental despotism. Daniel's vision (c. 2,) had been partly realized. "As iron breaketh in pieces and subdueth all things," so the Roman had broken in pieces and bruised the *gold*, the *silver*, and the *brass* of the ancient monarchies. But now "the God of heaven" was about to set up a kingdom, which shall "never be destroyed," and which "shall stand forever." (*Daniel* 2:44). Egypt was made a province of the Roman empire, directly subject to the *Imperator*. Herod was confirmed in the sovereignty of Judea. Octavian's arbitration was solicited by rival claimants of the Parthian throne. His name was added to the Senate and People of Rome in the public prayers for the State. All powers and honors concentrated in his hands. The restoration of universal peace was solemnly inaugurated by closing the temple of Janus in the Forum. Twice only before this epoch had its doors been shut: once in the peaceful reign of Numa, and again at the end of the First Punic War. Thus was the way prepared for the advent of the Lord Jesus Christ, whose right it is to reign, and "of the increase" of whose "government and peace there shall be no end."

SYNCHRONOLOGY, B. C. 44-29.

ROME.	JUDEA.	EGYPT.	PARTHIA.
Second Triumvirate, composed of Octavian, Antony and Lepidus. Murder of Cicero, 43.	Cassius demands 700 talents—$1,050,000, 43.	Cleopatra poisons her brother, and declares for the Roman Triumvirs, 43.	Parthians conquer Judea, and place Antigonus on the throne, 40.
Battle of Philippi, 42.	Antigonus vanquished by Herod, 42.	Obtains Phœnicia, Cyprus, and Cyrene from Antony, 36.	Defeated by Ventidius, who slays Pacorus, their general 39.
Sextus Pompey beaten in Sicily, 36.	Jerusalem captured by Herod, a proselyted Edomite, 37.	Is crowned, together with all her children, 33.	
War between Antony and Octavian, 32.	Herod confirmed in his kingdom by Octavian, 30.	Flies from the battle of Actium, 31.	Golden age of Roman literature, 39.
Battle of Actium, 31.	Octavian magnificently entertained by Herod in Palestine, 29.	Antony dies in her arms—she kills herself, 30.	First standing army Silk and linen manufactories in the Roman Empire, 39.
Temple of Janus closed, 29.			
Rome contains 4,101,017 citizens, 29.			

CHAPTER XLVI.

THE ROMANS: FROM THE FOUNDATION OF THE ROMAN EMPIRE TO THE ESTABLISHMENT OF THE KINGDOM OF CHRIST, B. C. 29—A. D. 33.

After the decisive battle of Actium, Octavian gathered all legislative and administrative powers into his own hands. He kept his troops enrolled, was made Imperator and Censor for life, was invested with the power of raising plebeians to patrician rank, and was named the "Chief of the Senate," the PRINCEPS, or the first man of the State, and the leader of its entire policy and action. The Senate also bestowed the further title of AUGUSTUS—a title as unique as its recipient. He retained the family name of Cæsar, from which comes the modern title of *Kaiser*, borne by the Emperor of Germany, and also the title of *Czar*, which is worn by the Autocrat of all the Russias.

Despotic power was now firmly established under republican forms, and wielded the energies of the 4,164,000 Roman citizens between the ages of 16 and 60; and drew upon the resources of the seventeen millions of both sexes whom they represented, as well as upon the wealth of the millions in subject provinces. In B. C. 23 Augustus received perpetual proconsular authority over all the provinces. This "gave him throughout the domains of the Republic the control of the revenues, the disposal of the armies, the execution of the laws, the administration of internal reforms, and the adjustment of foreign relations." The Senate still appointed officers over the settled provinces, but these officers were accountable for every public act to Augustus himself. The powers and privileges of the plebeian tribunes were next surrendered to him, thus making him the acknowledged chief of the people, as well as of the Senate and army, and also

clothing his person with sacred inviolability. The powers of the consulship were added in B. C. 19, and in B. C. 12 he succeeded Lepidus in the chief pontificate; thus acquiring the last of the supreme honors of the State. Practically his will was law, and his judicial decisions grew into a body of laws, under the name of the *Imperial Constitutions*.

In the exercise of his authority, Augustus reformed the Senate, fixed its number at six hundred, and raised the property qualification of each member to $50,000. In the Emperor's absence from Rome, the Prefect of the City represented him, and held absolute command of the city, and also of the country to a distance of 100 miles around it. "Boards were formed for the care of the public buildings, the roads, aqueducts, and sewers, the navigation of the Tiber, the distribution of corn, and other municipal functions." He endeavored to reconcile the people to the loss of liberty by the gift of material prosperity and continual amusements. A standing army of 340,000 men was imposed upon the empire. At Rome a permanent military force, called the *Prætorian Guards*, was stationed. All of them were Italians, received double pay, and served twelve years. Each received a gratuity of 20,000 sesterces, ($850.80) and ranked as a gentleman. This famous body of troops afterwards became the irresponsible masters of the government. A naval force of from 600 to 1,000 vessels guarded the shores and rivers of the empire, and, in common with the army and civil service, was maintained by an onerous system of land and poll taxes, tithes and double-tithes of produce, customs, duties, tolls, rates, imposts, succession duties, and rents of state property.

If unbounded power and flattery could have made Augustus happy, he certainly would have been so. But he was not. His domestic relations were notoriously infelicitous. In vain did Horace celebrate his praises in the *Carmen Seculare*, the noblest work of the poet's lyric muse. His daughter Julia, was an accomplished and fascinating, but dissolute woman. He was wont to say that he had two troublesome daughters—Julia and the Republic. Julia's daughter inherited the vices as well as the name of her mother, and added another cloud to her grandfather's declining years. His two grandsons died soon after their mother's disgrace. He was almost crazed by grief over the loss of his legions in Germany. (CHAP. V. P. 9). Soured and morose, he bitterly desponded of the future of his subjects. He foresaw the evils that would issue from the character of his chosen successor, TIBERIUS. "Alas for my people," he exclaimed, "to be ground between jaws that move so slowly and relentlessly!" In his old age he compiled a record of his long career of fifty-eight years, and had it engraved on bronze tablets, and laid up in the Roman archives. After perusing the recital of all his acts, the reader feels with the historian Merivale, (*Vol. IV. pp.* 374–5) that "no deed of his life became him so well as the preparation he made for quitting it." In his final illness he asked his friends, "if he had played his part well in the comedy of life, and added a quotation from the epilogue of a Greek play:—

> 'If all is well, withhold not your applause,
> But all with cheerful pleasure clap your hands.' "

He died on the 19th of August, A. D. 14. His remains were burnt to ashes, in harmony with Roman usage, "and a Senator declared that he had seen the soul of the deified Augustus ascend to heaven from the funeral pyre."

Tiberius, the successor of Augustus, was fifty-six years old when he assumed the empire of the civilized world. A skillful general and an experienced administrator, he was also one of the most mistrustful and suspicious of men. Pliny called him "the saddest of mankind." Hypocritical and ambitious, he held that the one body of the empire should be governed by one mind, and abolished the last remnant of popular election. His campaigns against the Germans, though led by his brilliant relative, Germanicus, were failures. Arminius remained the liberator of Germany. In Africa the Romans were more successful, and suppressed the rebellion of the Numidian Tacfarinas, the Abd-el-Kader of his day, A. D. 17. Tiberius punished with death all unfriendly criticism of his character or government, and let loose a host of infamous spies and informers upon the noblest citizens of Rome. The people believed him to be guilty of the murder of Germanicus. His distrust of them was often expressed in the emphatic saying:—"I am holding a wolf by the ears." Sejanus—a man whose pride and meanness were equal, whose lust of power and lucre was insatiable, and who seduced two noble matrons of the imperial family, and then conspired with them to murder their husbands—was his prime favorite. He might also have been the destroyer of Tiberius, had not the emperor treacherously caused his destruction.

To get beyond the reach of the Roman wolf, Tiberius retired to the island of Ca'-pre-æ, (*Capri*, pronounced *Kah'-pree*), on the coast of Naples. There he enjoyed the delicious climate, revelled in the exquisite beauties of nature, watched the victims of his tyranny as they were hurled headlong from the rocks, and gratified his hideous and abominable lusts. The imperial wretch was utterly miserable. "Not in vain," wrote Tacitus, "was the wisest of philosophers wont to maintain that, could the hearts of tyrants be opened to our gaze, we should behold there the direst wounds and ulcers; for the mind is torn with cruelty, lust, and evil inclinations, not less truly than the body by blows." Superstitious, addicted to divination, and corroded by every vice, Tiberius yet lived to be upwards of seventy-seven years of age, when Macro, the new prætorian prefect, ordered him to be smothered by heaping on coverlets, as if for warmth, and to be left alone to die.

During the reign of the first two Roman emperors, events had occurred in the province of Judea, that were of infinite and eternal importance to the entire human race. While the imperial rulers were trying the experiment of political union on worldly principles, it was apparent to deep-thinking men that their system could not endure, because it was not founded in the feelings, wishes, and needs of their various subjects. But the kingdom of a UNIVERSAL RULER was about to be established in the mind and heart of humanity—a kingdom that increases as the ages pass—a kingdom whose monarch, as Napoleon so forcibly expressed it in a conversation at St. Helena, has firmer hold on the love and service of men to-day than in any previous century of its history. In B. C. 4, according to the best chronologists, the King of Kings, CHRIST THE LORD, was born in a stable at Bethlehem. The time was probably near the Passover.

The dying monster Herod, of whom Augustus had said—"It is better to be Herod's pig than to be his son," because of his murderous propensities, sought to include the infant monarch in the "slaughter of the innocents," but failed. The life of the Lord Jesus Christ, until the beginning of his public ministry, was passed in Galilee, under the government of Herod Antipas, a cruel, sensual, superstitious prince, whose cunning was stamped by the Saviour himself with the epithet of "that fox." He shared with Pontius Pilate in the shameful crime of the Redeemer's condemnation, and was banished for the rest of his life to Lyon, by Caligula, in A. D. 39.

Jew and Gentile, Sanhedrin and Governor, were the responsible but unwitting instruments of one of the blackest and most enormous crimes known to history—the crucifixion of Christ. The Sanhedrin, or great council of seventy-one members—priests, Levites, and elders—condemned Him to death, but the sentence had to be confirmed and executed by the procurator. Therefore it was that He was subjected to the servile scourge, and to the ignominious and accursed

death of the cross. His enemies knew not that from His death life was to come to all the race—salvation from His destruction—felicity from his anguish. Of His resurrection, ascension, and assumption of universal sovereignty, this is not the place to speak at large. But no history of the world could establish its pretensions to the title if it ignored the LIFE OF THE LORD JESUS CHRIST—the great central fact of the world's history—the fact to which all obsolete religions looked forward with more or less of longing—the fact which, more than all others, has influenced, and continues to influence for unmixed good, the thought, the feeling and the action of the human family.

Ten days after His elevation to the right hand of the Majesty on high, came the outpouring of the Holy Spirit upon His disciples, the preaching of salvation from sin and its sequences through faith in Him, and the formal constitution of the CHURCH OF CHRIST. This was one of the world's "red-letter" days—the Day of Pentecost, May 26th, A. D. 30.

SYNCHRONOLOGY, B. C. 29—A. D. 30.

JUDEA.

Herod puts his wife, Mariamne, to death, B. C. 29.

Rebuilds Samaria, and calls it Sebaste, 25.

Relieves the Jews in famine, 25.

Builds Cæsarea Stratonis, 22.

Rebuilds the temple at Jerusalem, 19.

The census or register of estates and families in Judea made, 5.

Birth of our Lord Jesus Christ at the close of the 4,000th year of the world, 4.

Death of Herod the Great, 2.

Philo Judæus, disciple of Plato, teaches in Alexandria, A. D. 30.

Death and resurrection of our LORD JESUS CHRIST, 33.

Conversion of Saul of Tarsus, 35.

ROME.

Octavian named Augustus Jan. 13th, B. C. 37.

AUGUSTAN OR GOLDEN AGE OF LITERATURE. Horace, Virgil, Ovid, Tibullus, and Propertius, the poets; Livy, the historian; Mæcenas, the minister of Augustus, and patron of letters; Strabo, the geographer; Agrippa, patron of the arts, and many eminent scientists, flourish.

Augustus assumes the title of Pontifex Maximus, 13.

Cæcilius Isidorus left 4,116 slaves to his heirs, 12.

Leap Year corrected, A. D. 4.

Celsus, the physician, 9.

Augustus dies at Nola, 14.

GERMANY.

Germans defeat Lollius, B. C. 16.

Bad government of Q. Varus, in lower Germany, A. D. 6.

Varus defeated and slain by Arminius, 10.

The Marcomanni conquered by Drusus, 19.

Arminius or Herman slain, 21.

The Druids in Germany, 26.

Germanicus poisoned by Piso, at Antioch, 19.

Retreat of Tiberius to Capreæ, 26.

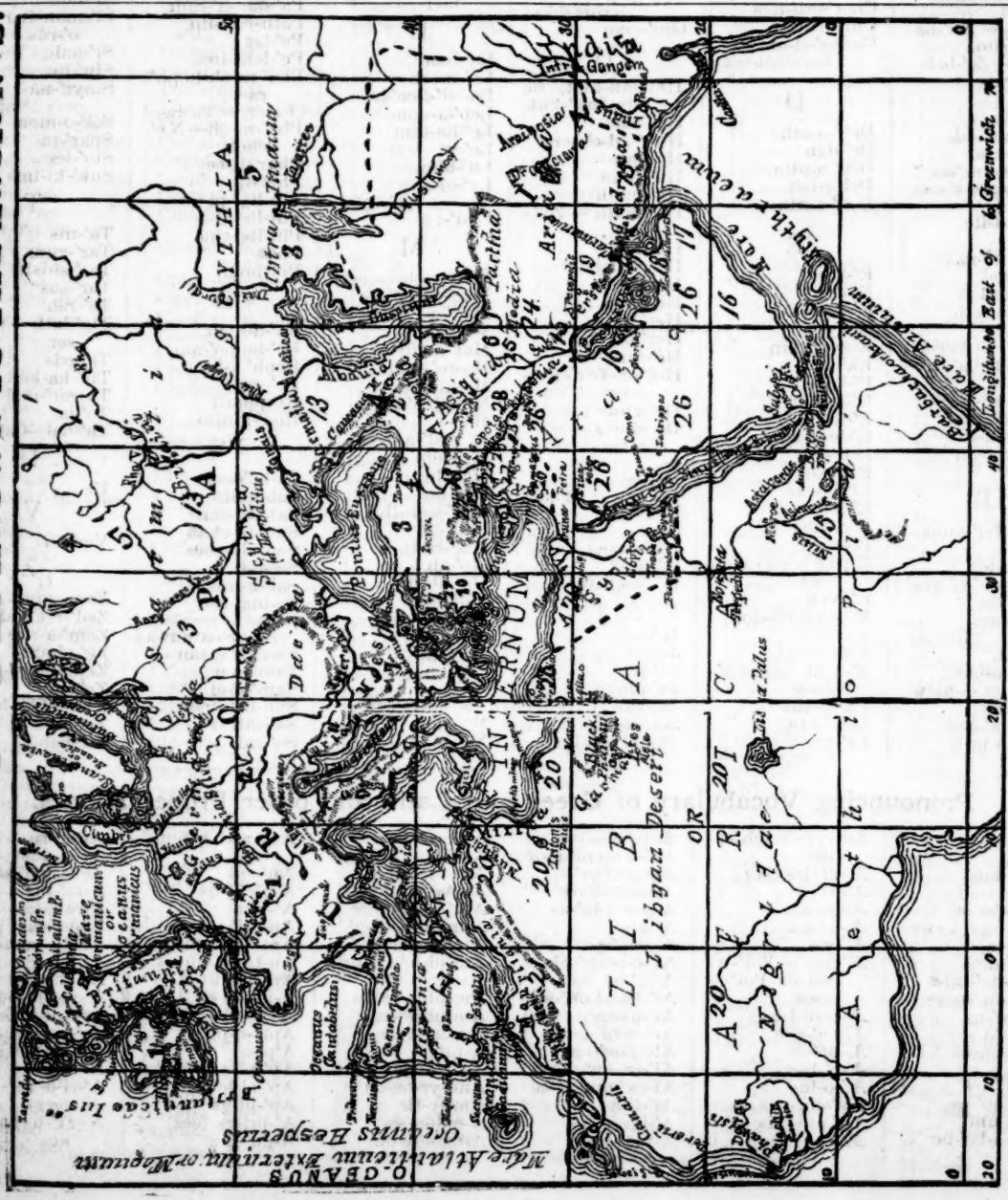
Seneca, the moral philosopher, 30.

Sejanus put to death, 31.

Conquest of Mauritania, 33.

Valerius Maximus, the historian, 33.

Death of Tiberius, 34.



ETHNOGRAPHIC INDEX.—1. Gomer. 2. Aschkenaz. 3. Riphath. 4. Togarmah. 5. Magog. 6. Madai. 7. Javan. 8. Elishah. 9. Tarshish. 10. Kittim. 11. Dodanim. 12. Tubal. 13. Meshech. 14. Tiras. 15. Cush. 16. Havilah. 17. Sabtah. 18. Raamah. 19. Sabtecha. 20. Mizraim. 21. Phut. 22. Canaan. 23. Heth. 24. Elam. 25. Asshur. 26. Arphaxad. 27. Lud. 28. Aram.

PRONOUNCING VOCABULARY OF SCRIPTURE PROPER NAMES.

NOTE.—eez in parenthesis after a final s, denotes that *es* should be pronounced *eez*. An italic letter G, thus, (*G*) or (*g*) denotes that *g* has the sound of *j*.

A

A'-bel
Ac'cad
A-cha'-la (A-cha'-ya)
A-dram'-me-lech
A-grip'-pa
A-has'-u-e'-rus
A'-haz
Am'-mon-ite
Am'-o-rite
A'-nak
An'-a-kim
An'-a-mim
An'-ti-och
An-ti'-o-chus
A-ra'-bi-a
A'-ram
A'ram — Na'-ha-ra'-im
A'ram—Zo'-bah
Ar'-a-rat
Ar'-ca
Ark'-ite
Ar-phax'-ad
Ar'-sa-ces
Ar'-tax-erx'-es (Ar'-tag-zerk'-zeez)
Ar'-vad
Ar'-vad-ite
A'-sa
Ash'-che-naz
Ash'-dod
Ash'-ke-lon
Ash'-to-reth
As'-shur (Ash'-ur)
As'-shur-ba'-ni-pal
As'-shur-na'-sir-pal
As-syr'-i-a
As-syr'-i-an
A'vim

B

Ba'-al-ha'-mon
Ba'-bel
Bab'-y-lon
Bab'-y-lo'-ni-ans
Ba-go'-as
Ba'-la-am (Ba'-lam)
Ba'-rak
Bar'-na-bas
Bar-thol'-o-mew
Ba'-shan
Ben'-ha'-dad
Ben'-ja-min
Beth'-le'-hem
Beth'-she'-an

C

Cain
Cal'-neh
Caph'-tor
Caph'-to-rim
Căr'-che-mish (Kar'-ke-mish)
Ca'-ri-a
Car-ma'-ni-ans
Căr'-mel
Cas'-lu-him
Ched'-or-la'-o-mer (Ked'-or-la'-o-mer)
Cher'-eth-ites
Chit'-tim
Co-los'-si-ans (Ko-losh'-i-anz)

D

Deb'-o-rah
De'-dan
Ded'-a-nim
Del'-i-lah
Dod'-a-nim

E

E'-ber
E'-dom
E'-dom-ite
E'-gypt
E-gyp'-tian
Ek'-ron
E'-lam
E'-lam-ites
E'-lath
E'-le-a'-zar
E-li'-jah
E-li'-shah
El'-la-sar
E'-lon
E'-mims
E'-noch
E-piph'-a-nes (eez)
E'-rech
E'-sar-had'-don
E'-sau
Eth'-ba-al
E'-vil-me-ro'-dach
Ex'-o-dus
E-ze'-ki-el
Ez'-ra

G

Gath
Ga'-za
Ge'-bal
Ge'-rar
Ger'-ge-sites
Ger'-i-zim
Ge'-shur
Ge'-ther
Ge'-zer
Gib'-lites
Go-li'-ath
Go-mer
Gor'-gi-as
Go'-shen
Go'-zan
Gre'-ci-a (Gre'-shi-a)
Gre'-cian

H

Hab'-ak-kuk, or Ha-bak'-kuk
Ha'-bor
Had'-ad-e'-zer
Ha'-lah
Ha'-man
Ha'-math
Ha'-math — Zo'-bah
Ha'-ran
Hav'-i-lah
Haz'-a-el
He'-bron
Her'-mon
Her'-od
Hi'-ram
Hol'-o-fer'-nes (eez)
Ho'-rims
Ho-she'-a

I

I'-saac (I'-zak)
I-sa'-iah (I'-za-ya)
Ish'-ma-el-ite
Is'-ra-el
Is'-ra-el-ite

J

Ja'-bal
Jad-du'-a
Ja'-ir
Ja'-pheth
Ja'-van
Jeb'-u-site
Je-hoi'-a-kim
Jeph'-thah
Je-phun'-neh
Jez'-e'bel
Jok-tan'-ids
Jo-si'-ah
Jo'-tham
Ju'-bal

K

Kad'-moni-tes
Kah'-tan
Ke'-dar
Ken'-ite
Ken'-niz-zites
Ke-tu'-rah
Kit'-tim
Ku'-dur— La-ga'-mer

L

La'-ban
La'-mech
La-od'-i-ce'-a
Leb'-a-non
Le'-ha-bim
Le'-vi
Lu'-bim
Ly'-ci-a (Lish'-i-a)
Lyd'-i-a

M

Mac'-ca-bees(eez)
Mac'-ca-be'-us
Mad'-a-i
Ma'-gog
Mal'-a-chi
Ma-re'-shah
Me-gid'-do
Mel-chis'-e-dec
Me-ro'-dach—bal'-a-dan
Me'-rom
Me'-shech
Me-thu'-se-lah
Mid'-i-an-ite
Min'-ni
Miz'-ra-im
Mo'-ab
Mo'-ab-ite
Mo'-loch
Mor'-de-cai
Mo-ri'-ah
Mo'-ses

N

a'-ha-ra'-im
N' -hor
Na'-hum
Naph'-tu-him
Ne'-bo
Neb'-u-chad-nez'-zar
Ne'-chos
Ne'-he-mi'-ah
Neph'-i-lim
Ner'-gal
Nic'-o-de'-mus
Nim'-rod
Nin'-e-veh
No'-ah

O

O-ni'-as

P

Pa'-dan-a'-ram
Path-ru'-sim
Pe'-leg
Pe'-leth-ites
Pha'-ra-oh-hoph'-ra (Fa'-ro, *or* Fa'-ra-o)
Pha'-ra-oh— Ne'-choh
Phar'-i-see
Phil'-ip
Phi-lip'-pi
Phi-lis'-ti-a
Phi-lis'-tine
Phût
Pi'-thom

R

Ra'-a-mah
Re'-ho-bo'-am
Reph'-a-im
Re'-zon
Ri'-phath
Rod'-a-nim

S

Sa-be'-ans
Sab'-tah
Sab'-te-cha
Sab'-te-chah
Sad'-du-cees
Sa'-lah
Sal'-a-mis
Sa-ma'-ri-a (*Classical pronunciation* Sam'-a-ri'-a)
Sa-mar'-i-tan
Sam'-son
Sam'-u-el
San-he'-drim
Sa'-rah
Sa'-rai
Sar'-des
Sar'-gon
Se'-ba
Se-leu'-cus
Sen-nach'-e-rib, *or* Sen'-na-che'-rib
Se'-phar
Seph'-ar-va'-im
Shal'-ma-ne'-ser
Sha-re'-zer
She'-chem
Shem
Sheph'-e-lah
Shi'-nar
Shi'-shak
Shu'-shan
Si'-hon
Si'-mon-Bar—Gi-o'-ras
Si'-nai
Sin'-ite
Smyr'-na (Smir'-na)
Sol'-o-mon
Spar'-ta
Sto'-ics
Suk'-ki-ims

T

Ta'-nis
Tar'-gum
Tar'-shish
Tar'-sus
Te'-rah
Tig'-lath — pi-le'-ser
Ti'-gris
Tir'-ha-kah
To-gar'-mah
To'-la
Tu'-bal—Cain

U

Uz

V

Vash'-ti

Z

Zam-zum'-mims
Zed'-e-ki'-ah
Zem'-a-rite
Ze'-phath
Zeph'-a-ni'-ah
Ze'-rah
Ze-rub'-ba-bel
Zo'-an
Zo'-bah

Pronouncing Vocabulary of Greek and Latin and other Proper Names.

A-ah'-mes
A-ber'-i-on
Ab'-i-ba'-al
Ab'-o-rig'-i-nes (eez)
A-by'-dos
Ac'-a-de'-mi-a
Ac'-a-de'-mus
A-chæ'-us
A-cha'-i-a (Pronounced A-ka'-ya
A-chil'-les
Ach-tho'-ēs
Ac'-ti-um
A'-di-a-be'-ne
Ad'-yr-mach'-i-dæ
Æ-di'-les (eez)
Æ-di'-lis
Æ-gæ-an
Æ-gi'-na
Æ'-gis
Æ'-gos — Pot'-a-mi or Pot'-a-mos
Æ-mil'-i-us
Æ-na'-ri-a
Æ-ne'-as
Æ-o'-li-a
Æ'-o-lus
Æs'-chi-nes
Æs'-chy-lus
Æ'-sop
Æ-to'-li-a
Ag'-a-mem'-non
Ag'-a-thyr'-si
Ag-bat'-a-na
A-*ges*'-i-la'-us
A'-gis
A-grip'-pa
Al'-e-man'-ni
A-la'-ni
Al'-ba—Lon'-ga
Al'-bi-on
Al'-ci-bi'-a-des
Alc-mæ'-on
Al'-ex-an'-der
Al-ex'-an-dri'-a
Al'-li-a
A'-ly-at'-tes
A-ma'-sis
A-ma'-zon
Am'-a-zo'-ni-an
Am-bra'-ci-a
Am'-e-ne'-man
Am'-e-no'-phis
A-men'-ho-tep'
A'-mo-sis
Am-phic'-ty-on-ic
Am-phip'-o-lis
Am-phis'-sa
A-mu'-li-us
A-mun'
A-myn'-tas
Am'-yr-tæ-us
Am'-y-tis
A-nab-a-sis
A-na'-cre-on
A-nax'-i-man'-der
An'-cus
A-nic'-i-us
A'-ni-o
An-tal'-ci-das
Ant-ar'-a-dus
An-tig'-o-nus
An-tip'-a-ter
A-pel'-les
A'-pe-pi
Aph'-o-phis
A'pi-a
Ap'-pi-us
Ap'-ol-lo'-ni-a
Ap'-pi-us
A'-pri-es (eez)
A-pu'-li-a
Ap-u'-ru
Ar'-a-dus
Ar'-a-me'-an
A-ra'-tus
A-rax'-es
Ar-be'-la
Ar'-be-la *or* Ar'-be-le
Ar-chon'-tes
A'-re-op'-a-gus
Ar-*gi*-nu'-sæ
Ar'-go-lis
Ar'-go-nau'-tic
Ar'-gos
A'-ri-o-ra'-thes (eez)
A-ri'-o-bar-za'-nes

A'-ri-o-vis'-tus
A-ris'-te-as
Ar'-is-ti'-des
A-ris'-to-bu'-lus
A-ris-to-de'-mus
Ar'-is-tot'-e-les
Ar-me'-ni-a
Ar-min'-i-us
Ar'-ses (eez)
Ar-sin'-o-ē
Ar'-ta-ba'-nus
Ar'-ta-pher'-nes (eez)
Ar-taph'-re-nes (eez)
Ar'-ta-vas'-des
Ar-tax'-i-as
Ar-tax'-a-ta
Ar'-tax-erx'-es (eez)
Ar'-te-mis
Ar'-te-mis'-i-a
Ar'-te-mis'-i-um
A'-ry-an
As-bys'-tæ
As'-ca-lon
As-ca'-ni-us
As-mo-næ'-an
As-tab'-o-ras
As'-ta-ca'-na
As'-tau-ni'-tis
As-ty'-a-ges (eez)
A-te'-i-us (A-te'-yus)
A-the'-na
A-the'-næ
*A*th-o'-this
A-til'-la
*A*t-lan'-tis
A-tos'-sa
*A*t'-ro-pa-te'-ne
*A*t'-ta-lus
*A*t'-til-la
A'-tys
Au'-gur
Au-gus'-tus
A'-quæ
Au-le'-tes (eez)
Au-re'-li-us
Aus-chi'-sæ
Aus'-cans
Au-toch'-tho-nes (eez)
Au-tom'-o-li
A-zo'-tus

B

Bab'-y-lon
Bab'-y-lo'-ni-a
Bac'-chus (Bak'-us)
Ba-go'-as
Bag-ra-ti'-des (eez)
Bar'-ca
Bas'-i-li'-us
Be'-lus
Ben'-e-ven'-tum
Ber'-y-tus
Bi-thyn'-i-a
Boc'-chus
Boc'-cho-ris
Bœ-o'-ti-a
Bo'-i-i
Bo-no'-ni-a
Brun-du'-si-um
Bru'-tus
Bu-bas'-tis
Bu-ceph'-a-la
Bu-ceph'-a-lus
Bu'-tos
Byb'-lus
By-zan'-ti-um

Cad-mei'-ans
Cad'-mus
Ca-du'-si-an
Cæ'-re
Cæ-sa'-ri-on
Ca'-i-us (Ka-yus)
Ca-lig'-u-la
Cal-lim'-a-chus
Cal-lin'-i-cus
Cal-pur'-ni-a
Ca-mil'-lus
Cam-pa'-ni-a
Ca-na'-ri-i
Can-dau'-les (eez)
Can'-næ
Cap'-pa-do'-ci-a
Cap'-u-a
Ca'-ri-a
Car-ma'-ni-a
Car-ne'-a-des (eez)
Car'-rhæ
Car'-thage
Car'-tha-gin'-i-an
Cas'-ca
Ca'-si-us
Cas-san'-der
Cat'-i-li'-na
Ca'-to
Ca-tul'-lus
Cat'-u-lus
Cau'-ca-sus
Cau-co'-nes (eez)
Ce'-crops
Cel'-ti-be-ri
Ceph'-al-le'-ni-a
Ce-phre'-nes (eez)
Ce-rau'-nus
Chær'-o-ne'-a (Ch=k)
Chal-ce'-don (Kal-se'-don)
Chal-cid'-i-ce
Chal-dæ'-a
Chal'-y-bes (eez)
Cha'-res
Char'-mi-an
Chas'-dim
Che'-ops (Ke'-ops)
Cher-so-ne'-sus
Che-rus'-ci
Chi'-os
Cho-re'-ne
Chry-sa'-o-reus or Chry s'-a-o'-re-us
Cic'-e-ro (Sis'-e-ro)
Ci-lic'-i-a
Cim'-ber
Cim'-bri
Cim-me'-ri-an
Ci-mo'-lus
Ci'-mon
Cin'-cin-na'-tus
Cin'-na
Cin'-y-ras
Cir-ce'-i-i (Sir'-se-yi)
Cis'-al-pi'-na
Cis'-si-a
Cit'-i-æ'-i
Cit'-i-um
Clau'-di-us
Cle-an'-thes (eez)
Cle-om'-e-nes (eez)
Cle'-on
Cle'-o-pa'-tra
Clep'-sy-dra
Clo-a'-ca—Max'-i-ma
Clo'-di-us
*Cl*œ'-li-a
*Cl*u'-si-um
*Cn*e'-us, or *Cn*æ-us
*Cn*i'-dus
Co'-cles (eez)
Cod'-o-man'-nus
Co'-drus
Col'-chis
Col'-la-ti'-nus
Co-mit'-i-a
Con-fu'-ci-us
Cop'-tos
Cor-cy'-ra
Co'-ri-o-la'-nus
Cor-ne'-li-a
Cor'-o-ne'-a
Cor'-si-ca
Cor-to'-na
Cor'-u-pe'-di-on
Cor'-vus
Cos-sæ'-i
Cras'-sus
Crœ'-sus
Cro-to'-na
Cryp-tel'-a
Ctes'-i-phon
Cu'-mæ
Cu-nax'-a
Cu'-ri-a
Cu'-ri-a'-ti-i
Cur'-sor
Cy-ax'-a-res (eez)
Cyc'-la-des (eez)
Cy-clo'-pes (eez)
Cy'-don
Cyd'-nus
Cy'-no
Cyn'-o-ceph'-a-læ
Cy'-prus
Cyr'-e-na'-i-ca
Cy'-rus
Cy-the'-ra

D

Da'-ci
Dæd'-a-lus
Da-mas'-cus
Dar'-da-ni
Dar'-da-nus
Da-ri'-us
Da'-tis
Dau'-ni-ans
Dau'-ri-ses (eez)
Dec'-i-mus
De'-ci-us
De-i'-o-ces (eez)
Dej'-o-ces (eez)
De-ma'-des (eez)
De-me'-tri-us
De-mos'-the-nes (eez)
De-od'-a-tus
Deu-ca'-li-on
Di'-do
Di'-o-do'-rus
Di-og'-e-nes (Di-oj'-e-neez)
Di-o-nys'-i-us
Di'-o-ny'-sus
Do'-lon
Do'-rus
Dra'-co
Dru'-sus
Du-il'-li-us

E

Ec-bat'-a-na
E'-le-a
El'-eu-sin-i-a
E-leu'-sis
E'-lis
El'-y-ma'-is
E-ni'-ne
E-pam'-i-non'-das
Eph'-e-sus
Eph'-i-al'-tes (eez)
Eph'-or
Ep'-i-cu'-rus
Ep'-i-cu'-re-an
Ep'-i-dam'-nus
Ep'-i-pha-ni'-a
E-piph'-a-nes (eez)
E-pi'-rus
Er'-a-tos'-the-nes (eez)
E-re'-tri-a
E-tru'-ri-a
E-trus'-can
Eu-bœ'-a
Euc'-lid
Eu-crat'-i-des (eez)
Eu-cr-*ge*-tes (eez)
Eu'-me-nes (eez)
Eu-mol'-pus
Eu-on'-y-mi'-tæ
Eu'-pa-tor
Eu'-pa-trid
Eu-phra'-tes
Eu-ro'-tas
Eu'-ry-bi'-a-des (eez)
Eu-se'-bi-us
Eux-i'-nus—Pon-tus
E-vag'-o-ras
E-van'-der

F

Fa'-bi-us
Faus'-tu-lus
Fe-ti-a'-le
Fi-de'-næ
Fim'-bri-a
Fla'-men
Fla-min'-i-us
Fre-*ge*l-læ
Ful'-vi-a

G

Ga'-bi-i
Ga-bin'-i-an
Gæ'-tu-li (Je'-tu-li)
Gæ-tu'-li-a (Je-tu'-li-a)
Ga-la'-ti-a
Gal'-li-a
Gan'-y-me'-de
Gar'-a-man'-tes
Gau'-zan-i'-tis (eez)
Gau'-ga-me'-la
Ge-dro'-si-a
Ge'-la
Gen-ti-us
Ger-ma'-ni
Ger-man'-i-cus
Ger-ma'-ni-i
Ges'-si-us — Flo'-rus
Ge'-tæ
Ge-tu'-li-a
Glad'-i-a'-tor
Glau'-ci-a
Go-bry'-as
Gor'-di-um
Go-ma'-tes
Gen-ser'-ic
Grac'-chus
Gra'-i-an (Gra'-yan)
Gra-ni'-cus
Gy'-*g*es (Jy-jees)
Gil'-li-gam'-mæ

H

Ha'-dri-an
Hal'-i-car-nas'-sus
Ha'-lys
Ha-mil'-car
Ham'-a-mat'
Han'-ni-bal
Han'-no
Har'-pa-lus
Ha-rus'-pex
Has'-dru'-bal
Hec'-tor
He'-li-o-do'-rus
He'-li-op'-o-lis
Hel'-le
Hel'-les-pon'-tus
He'-lots
Her'-a-cli'-a
Her'-a-cli'-dæ
Her'-cu-les (eez)
Her-eyn'-i-a
Her'-mes (eez)
Her-mi'-o-nes (eez)
Her'-ni-ci
Her'-od
He-rod'-o-tus
He'-si-od
He-si'-o-ne
Hi'-e-ro
Him'-e-ra
Hip'-po
Hip-pod'-a-mus
Hip'-po-drome
Hir'-ti-us
His-pa'-ni-a
Ho'-mer
Ho'-rus
Ho-ra'-ti-us
Ho-ra'-ti-i
Hor-ten'-si-an
Hor-ten'-si-us
Hos-til'-i-us
Hy-dar'-nes (eez)
Hy-das'-pes (eez)
Hyr-ca'-ni-a
Hyr-ca'-nus
Hys-tas'-pes (eez)

I

I-a'-o-nes (eez)
I-be'-res (eez)
I-be'-ri-a
Id'-u-me'-a
Il'-i-um
Il-lyr'-i-a
Il-lyr'-i-cum
I'-lus
Im-per-a'-tor
In'-a-chus
In'-a-rus
In'-dus
In'-di-a
In-*g*æv-o-nes (eez)
I'-on
I-phic'-ra-tes (eez)
I'-ras
Ir'-e-næ'-us
Is'-i-do'-rus
I'-sis
Is'-sus
Is-tæv'-o-nes (eez)

Jan-næ'-us
Ja-nic'-u-lum
Ja'-nus
Jap'-e-tus
Jer'-ome
Jo-se'-phus
Ju'-ba
Ju-dæ'-a
Ju-gur'-tha
Ju'-li-a
Ju'-li-us
Ju'-dich
Ju'-pi-ter

L

Lab'-y-rinth
La'-ce-dæ'-mon
Lac'-e-dæ-mo'-i-ans (Las'-e-de-mo'-ni-ans)
La-co'-ni-a
La'-di-ce
La-om'-e-don
Lap'-i-thæ
Lath'-y-rus
La-ti'-næ
La-ti'-nus
La'-ti-um
Lel'-e-*g*es (eez)
Lem'-nos
Le-on'-i-das
Lep'-i-dus
Lep'-tis
Leu-cop'-e-tra
Leuc'-tra
Li-bur'-ni
Li-cin'-i-us
Lig'-u-res (eez)
Li-gu'-ri-a
Liv'-i-a
Lo'-cri
Lo'-cris
Lu-ca'-nia
Lu'-ce-res (eez)
Lu-ce'-ri-a
Lu'-ci-us
Lu-cre'-ti-a
Lu-cre'-ti-us
Lu-cul'-lus
Lu'-cu-mo'-nes (eez)
Lu'-per-ca'-li-a
Ly-ce'-um
Ly-cur'-gus
Ly-san'-der
Lys'-i-as
Ly-sim'-a-chus
Ly-sip'-pus

M

Mac'-e-do'-ni-a
Ma'-cra
Ma-cri'-nus
Mac'-ca-be'-us
Mach'-y-lans
Mæ-ce'-nas
Mæ-o'-ni-a
Mod'-yes (eez)
Mæ-o'-tis—Pa'-lus
Mag-ne'-si-a
Ma'-go
Mal'-va
Ma'-nes (eez)
Man'-e-tho
Man'-li-us
Man'-ti-ne'-a
Mar'-a-can'-da
Mar'-a-thon
Mar'-ca
Mar-cel'-lus
Mar-do'-ni-us
Ma'-re-o'-tis
Mar'-*gi*-a'-na
Ma'-ri-us
Mar'-ti-us
Mas'-i-nis'-sa
Mas'-sæ-syl'-i-i
Mas-sag'-e-tæ
Mas-sil'-i-a
Mas-sy'-li or Mas-syl'-i-i
Maut
Mau'-ri-ta'-ni-a
Mau'-so-le'-um
Mau-so'-lus
Max'-yans
Me'-di-a
Me'-di-o-la'-num
Meg'-a-by'-zus
Meg'-a-ris
Mel'-a-no—Gæ-tu'-li-ans
Mel'-carth
Mem'-non
Mem'-phis
Me-nan'-der
Men'-des (eez)
Men'-e-la'-us
Me'-nes (eez)
Men'-o-do'-rus
Mer'-cu-ry
Mer'-o-e

Mes'-o-po-ta'-mi-a
Mes-sa'-pi-a
Mes-se'-ni-a
Met'-a-pon'-tum
Me-tho'-ne
Mi-cip'-sa
Mi'-das
Mi-le'-tus
Mil-ti'-a-des (eez)
Mi-ner'-va
Mi'-nos
Min-tur'-næ
Min'-y-æ
Mi-se'-num
Mith'-ras
Mith'-ri-da'-tes
Mne'-mon
Mœ'-ris
Mœ'-si-a
Mo'-lo-chath
Month
Mop'-su-es'-ti-a
Mos'-chi
Mum'-mi-us
Mun'-da
Mu'-ti-na
Mu'-ti-us
Myc'-a-le
Myc'-e-ri'-nus
My'-læ
Mys'-i-a
Myt'-i-le'-ne

N

Na'-bo-nid
Nap'-a-ta
Naph'-tu-hœ'-i
Nas'-a-mo'-nes (eez)
Na-si'-ca
Nax'-os
Ne-ar'-chus
Nec'-ta-ne'-bus
Nec'-ta-ne'-bris
Ne'-ku
Neph'-e-le
Nep'-tune
Ne'-ro
Ni-ca'-tor
Nic'-i-as
Nic'-o-me-des (eez)
Ni-to'-cris
No-ba'-tæ
No'-re-i'-a
Nor'-i-cum
No'-thus
Nu'-ma
Nu-mid'-i-a
Nu'-mi-tor

O

O'-chus
Oc-ta'-vi-a
Oc'-ta-vi-a'-nus
Oc-ta'-vi-us
O-des'-sus
Od-rys'-i-an
Œd'-i-pus
Œ-no'-tri-ans
Œ-no'-tri-a
Œ-no'-trus
O-lym'-pi-ads
O-lym'-pi-as
O-lym'-pic
O-ma'-nes (eez)
O-pim'-i-us
Or-chom'-e-nus
Or'-o-bar'-zus
O-ro'-des
O-ron'-tes (eez)
O-si'-ris
Os'-ti-a
Ox'-us

Pac'-o-rus
Pa-co'-rus
Pal'-es-tine
Pal-la'-di-um
Pal-my'-ra
Pa-lu'-di—Ni'-li
Pa-næ-nus
Pan-di'-on
Pan-do'-ra
Pa'-ni-o'-ni-um
Pan-no'-ni-a
Pa-nor'-mus
Pan'-sa
Pan'-ti-ca-pæ'-um
Pa-pæ'-us
Paph'-la-go'-ni-an
Pa'-pi-as
Pa-pir'-i-us
Pa'-ris
Par-me'-ni-o
Par-the'-ni-i
Par'-the-non
Par'-thi-a
Pa-rys'-a-tis
Pa-sar'-ga-dæ
Pasht
Pau'-lus
Pau-sa'-ni-as
Pe-las'-gi
Pe'-li-um
Pe-lop'-i-das
Pel-o'-pon-ne'-sus
Pe-lu'-si-um
Per-dic'-cas
Per'-ga-mus
Per'-i-cles (eez)
Per-sep'-o-lis
Per'-si-an
Pe-tre'-i-us (yus)
Pe-tro'-ni-us
Peu-ce'-ti-ans
Phar'-na-ba'-zus
Phar'-na-ces (eez)
Pha'-ros
Phar-sa'-li-a
Pha-ru'-si-i
Pha'-sis
Phat-nit'-ic
Phei'-don (Fy'don)
Phid'-i-as
Phil'-a-del'-phus
Phi'-læ
Phil'-e-tæ'-rus
Phi-lip'-pi
Phi'-lip
Phil'-o-me'-tor
Phi-lop'-a-tor
Phil'-o-pœ'-men
Phi-lo'-tas
Pho-cæ'-an
Pho-ci'-an
Pho'-ci-on
Phœ-nic'-i-an
Phra-or'-tes (eez)
Phrix'-us
Phryg'-i-an
Phtha
Phthi-o'-tis
Phys'-con
Pi-ce'-num
Pin'-dar
Pi-ræ'-e-us
Pis'-is-trat'-i-dæ
Pi-sis'-tra-tus
Pla-tæ'-a
Pla'-to
Plin'-i-us (Plin'-y)
Pleis-tar'-chus
Plo'-ti-a
Plu-tar'-chus (Plu'-tarch)
Po'-li-or-ce'-tes (eez)
Po-lyb'-i-us
Pol'-y-cle'-tus
Po-lyc'-ra-tes (eez)
Pol'-yg-no'-tus
Pol'-y-his'-tor
Pol'-y-sperch'-on
Pom-pe'-i-us (Pom'-pey)
Pon-ti'-us
Por'-ci-a
Por-sen'-na
Po'-rus
Pos'-i-do'-ni-us
Præ'-tor
Prex-as'-pes (eez)
Pri'-am
Pris'-cus
Pro-co'-pi-us
Prom'-a-chus
Pro-me'-the-us
Pro-pon'-tis
Pru'-si-as
Psam-men'-i-tus
Psam-met'-i-chus
Psam-men'-u-this
Psyl'-li
Ptol'-e-ma'-is (Tol'-e-my)
Ptol-e-mæ'-us
Pub'-li-us
Pu'-nic
Pu-te'-o-li
Pyd'-na
Pyg-ma'-li-on
Py'-læ
Py-re'-ne
Pyr'-rhus
Py-thag'-o-ras
Pyth-e-as
Pyth'-i-as

Q

Quæs-to'-res (eez)
Quinc-til'-is
Quin-ti'-lis
Quin-til'-i-us
Qui-ri'-nus
Qui-ri'-tes (eez)

R

Ra-am'-ses
Ram'-a-se'-um
Ras'-e-næ
Rau'-dine
Reg'-ma
Reg'-u-lus
Rem'-e-nen
Re'-mus
Rhe'-gi-um
Rhe'-nus
Rhe'-sus
Rhi-phæ-ans
Rho'-di-an
Ro'-ma
Rom'-u-lus
Rox-a'-na
Ru'-bi-con
Ru-pil'-i-us
Rut'-a-men

S

Sa-ba'-co
Sa-gun'-tum
Sä'-ite (Sah'-ite)
Sal'-a-mis
Sal'-lust
Sam'-nite
Sam'-ni-um
Sa'-mos
San'-cho-ni-a'-thon
Sau-dœ'-nis
Sans'-crit
Sar'-a-cens
Sar'-a-cus
Sar'-da-na-pa'-lus
Sar-din'-i-a
Sar-ma'-ti-ans
Sas'-san
Sas-san'-i-dæ
Sat-ta-gyd'-i-an
Sat'-urn
Sat'-ur-ni'-nus
Sau-rom'-a-tæ
Scæv'-o-la
Scip'-i-o
Sco'-pas
Scri-bo'-ni-a
Scyth'-i-a
Scy-thop'-o-lis
Se-ba'-co
Seb'-en-ny'-tus
Seg'-i-mer
Sel'-eu-ci-a
Sel-eu'-ci-dæ
Sel-eu'-cids
Sel-la'-si-a
Se-lym'-bri-a
Se-mir'-a-mis
Sem-pro'-ni-us
Sen'-o-nes (eez)
Sen-ti'-num
Sep-tim'-i-us
Sep'-tu-a-gint
Se-ra'-pis
Ser'-gi-us
Ser-to'-ri-us
Ser'-vi-us
Se-sos'-tris
Ses'-ti-us
Ses'-tos
Se-ve'-rus
Sex'-ti-a
Sex-ti'-lis
Sex-til'-i-us
Sex'-tus
She'-shonk
Sic'-u-lus
Sic'-y-on (Sish'-i-on)
Si-de'-tes (eez)
Si-do'-ni-ans
Si-gæ'-um
Sil'-vi-a
Si-mon'-i-des (eez)
Sim'-y-ra
Si'-non
Si-no'-pe
Siph'-nus
Si-sam'-nes (eez)
Sis'-y-phus
Si-tal'-ces (eez)
Soc'-ra-tes (eez)
Sog'-di-a'-na
Sog'-di-ans
Sog'-di-a'-nus
So'-læ
Soph'-o-cles
Soph'-o-nis'-ba
So'-ter
Spar'-ta-cus
Spin'-tha-rus
Sta-ti'-ra
Stra'-bo
Strat'-o-ni'-ce
Sue'-vi
Sue'-la
Sul-pic'-i-an
Su'-sa
Su'-si-a'-na
Syb'-a-ris
Sy'-e-ne
Sy'-phax
Sy-pho'-as
Syr'-a-cu'se
Syr'-tis

T

Taç'-i-tus
Ta-ges (eez)
Ta'-nis
Tar'-chun (Tar'-koon)
Ta-ren'-tum
Tar-quin'-i-i
Tar-quin'-i-us
Tar-tes'-sus
Tau'-rus
Tem'-en-bar
Ten'-e-dos
Ten'-nes (eez)
Te-ren'-ti-us
Ter'-ence
Teu'-cer
Teu'-cri
Teu'-ta
Teu-tæ'-us
Teu'-tons
Tha'-les (eez)
Tha-les'-tris
Thap'-sa-cus
Thap'-sus
Tha'-sos
Tha'-las-so'-cra-cy
The-mis'-to-cles (eez)
The-oc'-ri-tus
The'-ra
Ther-mo'-don
Ther-mop'-y-læ
The'-se-us
Thes'-pis
Thes-sa'-li-a
Thin-æ'-us
Thoth
Thoth'-mes(eez)
Thra'ce
Thra'-ci-an
Thu-cyd'-i-des (eez)
Tib'a-re'-ni
Tib-e-ri'-nus
Ti-be'-ri-us
Ti-ci'-nus
Ti-gra'-nes (eez)
Ti-gran'-o-cer'-ta
Ti'-gris
Tir'-i-da-tes (eez)
Ti'-tan
Ti'-tus
Tom'-y-ris
Tra'-jan
Trans'-al-pi'-na
Tra-pe'-zus
Tras'-i-me'-nus
Tre'-bi-a
Trip'-o-lis
Tris'-me-gis'-tus
Tsa'-bæ-ism
Tri-um'-vi-rate
Trog'-lo-dy'-tes (eez)
Tul'-li-a'-num
Tul'-lus
Tul'-li-us
Tu'-nis
Tyr-rhe'-nus
Tyr-tæ'-us

U

U-lys'-ses
Um'-bri-an
U'-ra-nus
U'-ti-ca

V

Vad'-i-mo'-ni-an
Va-le'-ri-us
Ve'-i-i (Ve'-yi)
Ven'-e-ti
Ven-tid'-i-us
Ve'-nus — U-ra'-ni-a
Ve-ro'-na
Ves-pa'-si-an
Ve-su'-vi-us
Vik'-ra-ma-dit'-ya
Vip-sa'-ni-us
Vir-gin'-i-a
Vul'-can

X

Xan-thip'-pus
Xen'-o-phon
Xerx'-es (Zerk'-zeez)
Xu'-thus

Z

Za-cyn'-thus
Zad'-ra-car'-ta
Za-leu'-cus
Zat'-i-a'-dras
Zar'-zis
Ze-i'-las
Ze'-no
Zeux'-is
Zop'-y-rus
Zo-ro-as'-ter
Zend—A-ves'-ta

PRONOUNCING VOCABULARY OF MODERN GEOGRAPHICAL NAMES.

A'-bu-ry
Ad'-ri-at'-ic
Af-ghan'-is-tan' (*Ahf-gahn'-is-tah'n*)
Ah'-ri-man
Aix (*Akes*)
Ak'-ker-kuf (*Ak'-ker-koof*)
Al-ge-zi'-ras (*Al-je-zee'-ras*)
Al-giers' (*Al-jeerz'*)
Al-sace' (*Ahl'-sahss'*)
A-mu' (*A-moo*)
An'-da-lu'-si-a (*Ahn'-dah-lu'-shi-a*)
An'-gle-sea
Ap'-en-nines
Ar'-a-rat
A'-sen
As-sam'
Ath'-ens
Aus-tra'-li-an
Ax'-um (*Ahk-soom'*)
Az'-of, or Az'-ov
Bag-dad' (*Bagh-dahd'*)
Ba-gra-te-on' (*Bah-grah-te-on'*)
Bah-rein' (*Bah-rane'*)
Bahr-el—Yus'-suf (*Bahr-el—Yoos'-soof*)
Ba'-ken-phtha'
Balkh (*Bahlk*)
Bar'-ba-ry
Bar-sip'-pa
Ba-va'-ri-a
Bed'-ou-in (*Bed'-o-ween*)
Be-his'-tun (*Be-his'-toon*)
Bey'-root ((*Bi'-root* or *Bay'-root*)
Bil-ed-ul-ger-id (*Bil'-ed-ool-jer-eed'*)
Bo-he'-mi-a
Bo-kha'-ra (*Bo-kah'-rah*)
Bo-log'-na (*Bo-lone'-yah*)
Bo-lor'
Bos'-po-rus or Bos'-pho-rus
Bos'-jes-man
Bres'-ci-a (*Bresh-e-a'*)
Bad-akh-shan' (*Bad'-ak-shahn'*)
Bul-ga'-ri-a (*Bool-ga'-ri-a*)
Bur-gun'-di-an
Bur'-gun-dy
Bur'-mah
Ca-bul' (*Ca-bool'*)
Ca'-diz (*Cay'-diz*)
Cag-li-a-ri (*Kahl'-yah-re*)
Cam'-brai (*Kahm'-bray'*)
Cam'-bri-a
Can-da-har'
Ca-rin'-thi-a (*German, Kern'-ten*)
Car-pa'-thi-an
Car'-ta-ge'-na (*Kar-ta-jee'-na*)
Ceph'-a lo'-ni-a (*Greek, Kef-ah-lo-nee'-ah*)
Ce-pra'-no (*Chay-prah'-no*)
Charle-magne (*Sharl-ma'in*)
Cir-cas'-si-a (*Ser-kash'-e-a*)
Chi-nese'
Co-im'-bra (*Ko-eem'-brah*)
Con-stan-ti'-na (*Kon-stahn-tee'-nah*)
Con-stan'-ti-no'-ple
Cor-fu' (*Kor-foo'*)
Cor'-inth
Cre'te, The modern Can'-di-a
Cum'-ber-land
Cym-ry (*Kim'-ry*)
Cyp'-ri-an (*Sip'-re-an*)
Dam'-i-et'-ta
Dan'-ube
Dar'-da-nelles' (*Dar'-da-nelz'*)
Den'-mark
Det'-mold (*German, Det'-molt*)
Drave
Du-raz'-zo (*Doo-raht'-so*)
E'-bro (*Spanish, Ay'-bro*)
El-boorz'
El-e-phan'-tine
Eu-phra'-tes (*Yoo-fray'-teez*)
Eux'-ine (*Yoox'-in*)
Fez or Fas
Fou-lah (*Foo'-lah*)
Fy-oum'
Ga-lic'-i-a (*Ga-lish'-e-a*)
Gua-dal-qui-vir' (*Hwah-dahl-ke-veer'*)
Geor'-gi-ans
Gi-bral'-ter (*Spanish, He-brahl-tar'*)
Guth'-ons
Had-ra-maut'
Hel'-les-pont
Her-at (*Her-aht'*)
Hin'-doo—Koosh
Hin-do-stan' (*Hin-do-stahn'*)
Hin'-du (*Hin'-doo*)
Ho'-ma
Hos-sein'
Hu Ca-darn'
Hu'-leh
Hun'-ga-ry (*Hung'-ga-ri*)
Ib-ra-him' (*Ib-rah-heem'*)
I-rak Ar-a-bi (*E-rahk' Ahr'-a-bee*
I-ran' (*E-rahn'*)
Is'-chi-a (*Is'-ke-a*)
Is'-kus
Kar'-nac or Car'-nac
Kar'-nak (*Kahr'-nahk*)
Kur'-neh (*Koor'-neh*)
Kaut'-sir
Ka-di'-sha (*Ka-dee'-shah*)
Kes'-wick
Kha-bur (*Kah-boor'*)
Khar-toum' (*Kar-toom'*)
Khu-sis-tan' (*Koo-zis-tahn'*)
Kirg'-hiz (*Kir'-heez*)
Kiz'-il Ir'-mak (*Turkish, Kiz'-il Eermahk'*)
Kla'-gen-furth (*German, Klah'-genfoort*)
Koon-dooz'
Kur (*Koor*)
Kur-dis-tan' (*Koor-dis-tahn'*)
Kor-do-fan (*Kor-do-fahn'*)
La-ca'-sa Lesg'-hi'-ans
Li-vo'-ni-a (*German, Leef'-lahnt*)
Lom'-bar-dy
Lor-raine' (*Lor-rane'*)
Lu-sa'-ti-a (*Lu-sa-she-a*)
Lux'-or
Ma'-gra (*Mah'-gra*)
Mal'-a-bar
Ma-lay'
Man-din'-go
Mar'-mo-ra
Mar-seilles' (*Mar-saylz'*)
Me-di'-net-el—Fayoom'(*Me-dee'-net-el-Fy-oom'*)
Me-di'-net—Abou (*Me-dee'-net—A-boo'*)
Med'-i-ter-ra'-ne-an
Me'-tra-hen'-ny
Min-gre'-li-ans
Mod-e-na
Mo-ham'-med-an
Mo-roc'-co
No-va'-ra (*No-vah'-rah*)
Ny-an'-za—Al'-bert
Ny-an'-za—Vic-to'-ri-a
Nu'-bi-a
Ooz'-bek' or Uz'-bek'
Or-muzd'
Pat'-a-go'-ni-a
Pro'-vence (*Pro'-vonss'*)
Quim-per (*Kan'-per'*)
Re'-no
Ro-set'-ta
Rus-si-a (*Rush-e'-a*)
Sa-ha'-ra (*Sa-hah'-ra*)
Sai'-da (*Sy'-dah*)
Sam'-ar-cand'
Sar-te'-na (*Sar-tay'-nah*)
Scan'-din-a'-vi-a
Seine (*Sayne*)
Se'-is-tan' (*Say'-is-tahn'*)
Sen'-na'-ar (*Sen'-nar'*)
Se-vas'-to-pol or Se-bas'-to-pol
Shen'-dy
Si-am' (*Se'-am'*)
Sic'-i-ly
Sou'-dan' (*Soo'-dahn'*)
Stone-henge'
Sua'-bi-a (*Swa'-bi-a*)
Sut'-lej
Ta-caz'-ze (*Tah-kaht'-sa*)
Ta'-ran-to (*Tah'-rahn-to*)
Ter'-radi O-tran'-to (*Ter'-radee O'-tran'-to*
Thebes (*Theebz*)
Thib'-et, or Tib'et
Ti'-gris
Tor'-re a Ma're (*Tor'-rā ah Mah'-rā*
Treb'-i-zond'
Tu-is'-co
Tur'-co-mans (*Toor'-ko-mans*)
Tyre
U'-kra-ine (*Yoo'-krane*)
Var'-na
Vos-ges (*Vohzh*)
Wal-la'-chi-a (*Wol-lay'-ki-a*
War'-ka
Yen'-i-se'-e (*Yen'-e-say'-e*)
Zea'-land (*Zee'-land*)

THE SKYLARK'S SONG.

Winged voice to tell the skies of earth,
Dear earth-born lark, sing on, sing clear,
Sing into heaven that she may hear;
Sing what thou wilt so she but know
Thine ecstasy of summer mirth,
And think, "'Tis from the world below."

Instant old wont returns fresh brought,
And her desire goes seeking me,
For whom her whole world used to be
And all my world for sake of her;
She cannot think an earth-ward thought
That shall not seem my messenger

She will be glad for love, and smile,
Saying, "Thank God for joy like ours,"
Saying, "There comes the kind home hours:
His work day will be sped ere long,
That keeps him hence this little while."
Sing, lark, until she know thy song.

Sing of the earth, but sing no care,
Sing thine own measureless content;
She will remember what it meant;
Griefs are too base, but, carrolling thus,
Thou with thy joy may'st reach her there,
And she joy too remembering us.

THE SPECTATOR.

This name belongs in literary history to a series of essays published on Saturdays in London, and constituting thus a sort of periodical. Addison was the chief writer, though Sir Richard Steele was an almost equally important contributor, and there were besides these a considerable number of coadjutors of less fame. Steele is really entitled to a large share of the credit of the undertaking. He had previously published the "Tatler" out of which the greater "Spectator" grew. Steele, too, originally sketched the figure of Sir Roger de Coverley, of which Addison afterwards took possession by the right of the stronger, and made so much. There is a very good selection in a single volume from the "Spectator" edited by Mr. Thomas Arnold, and issued by the famous "Clarendon Press." The whole number of papers included in the series as originally published was 555. They make a publication of considerable bulk.

We represent Steele's part in the "Spectator" by that paper wherein he sketches the various members of the imaginary club in which one gentleman was supposed to be a chiefly silent *spectator*, whence the name of the series. Sir Roger de Coverley we further introduce to our readers by giving them Addison's account of the "Spectator's" visit in Sir Roger's company to Vauxhall Gardens. Addison again shall furnish "The Vision of Mirzah," an old acquaintance this, no doubt, to some adult readers, but not the less welcome for that. The two others are also from the hand of Addison.

No. 2. The Club;—Sir Roger de Coverley, the Templar, Sir Andrew Freeport, Captain Sentry, Will Honeycomb, the Clergyman, the Spectator.

. . . . . Ast alii sex
Et plures uno conclamant ore . . . .
JUV. Sat. vii. 167.

Six more at least join their consenting voice.

The first of our society is a gentleman of Worcestershire, of ancient descent, a baronet, his name Sir Roger de Coverley. His great grandfather was inventor of that famous country-dance which is called after him. All who know that shire are very well acquainted with the parts and merits of Sir Roger. He is a gentleman that is very singular in his behavior, but his singularities proceed from his good sense, and are contradictions to the manners of the world, only as he thinks the world is in the wrong. However, this humor creates him no enemies, for he does nothing with sourness or obstinacy; and his being unconfined to modes and forms, makes him but the readier and more capable to please and oblige all who know him. When he is in town, he lives in Soho Square. It is said, he keeps himself a batchelor, by reason he was crossed in love by a perverse beautiful widow of the next county to him. Before this disappointment, Sir Roger was what you call a fine gentleman, had often supped with my Lord Rochester and Sir George Etherege, fought a duel upon his first coming to town, and kicked Bully Dawson in a public coffeehouse, for calling him youngster. But, being ill used by the above mentioned widow, he was very serious for a year and a half; and though, his temper being naturally jovial, he at last got over it, he grew careless of himself, and never dressed afterwards. He continues to wear a coat and doublet of the same cut, that were in fashion at the time of his repulse, which, in his merry humors, he tells us, has been in and out twelve times since he first wore it. He is now in his fifty-sixth year, cheerful, gay, and hearty; keeps a good house both in town and country; a great lover of mankind; but there is such a mirthful cast in his behavior, that he is rather beloved than esteemed. His tenants grow rich, his servants look satisfied, all the young women profess love to him, and the young men are glad of his company; when he comes into a house, he calls the servants by their names, and talks all the way up stairs to a visit. I must not omit, that Sir Roger is a justice of the *quorum*; that he fills the chair at a quarter-session with great abilities, and three months ago, gained universal applause, by explaining a passage in the game-act.

The gentleman next in esteem and authority among us, is another batchelor, who is a member of the Inner Temple; a man of great probity, wit, and understanding; but he has chosen his place of residence rather to obey the direction of an old humorsome father, than in pursuit of his own inclinations. He was placed there to study the laws of the land, and is the most learned of any of the house in those of the stage. Aristotle and Longinus are much better understood by him than Littleton or Coke. The father sends up, every post, questions relating to marriage-articles, leases, and tenures, in the neighborhood; all which questions he agrees with an attorney to answer and take care of in the lump. He is studying the passions themselves, when he should be inquiring into the debates among men which arise from them. He knows the argument of each of the orations of Demosthenes and Tully; but not one case in the reports of our own courts. No one ever took him for a fool, but none, except his intimate friends, know he has a great deal of wit. This turn makes him at once both disinterested and agreeable; as few of his thoughts are drawn from business, they are most of them fit for conversation. His taste of books is a little too just for the age he lives in; he has read all, but approves of very few. His familiarity with the customs, manners, actions, and writings of the ancients, makes him a very delicate observer of what occurs to him in the present world. He is an excellent critic, and the time of the play is his hour of business; exactly at five he passes through New Inn, crosses through Russell Court, and takes a turn at Wills', till the play begins; he has his shoes rubbed, and his periwig powdered at the barber's as you go into the Rose. It is for the good of the audience when he is at a play; for the actors have an ambition to please him.

The person of next consideration is Sir Andrew Freeport, a merchant of great eminence in the city of London. A person of indefatigable industry, strong reason, and great experience. His notions of trade are noble and generous, and (as every rich man has usually some sly way of jesting, which would make no great figure were he not a rich man) he calls the sea the British Common. He is acquainted with commerce in all its parts, and will tell you that it is a stupid and barbarous way to extend dominion by arms, for true power is to be got by arts and industry. He will often argue, that if this part of our trade were well cultivated, we should gain from one nation,—and if another, from another. I have heard him prove, that diligence makes more lasting acquisitions than valor, and that sloth has ruined more nations than the sword. He abounds in several frugal maxims, amongst which the greatest favorite is, 'A penny saved is a penny got.' A general trader of good sense is pleasanter company than a general scholar; and Sir Andrew having a natural unaffected eloquence, the perspicuity of his discourse gives the same pleasure that wit would in another man. He has made his fortunes himself; and says that England may be richer than other kingdoms, by as plain methods as he himself is richer than other men; though at the same time I can say this of him, that there is not a point in the compass but blows home a ship in which he is an owner.

Next to Sir Andrew in the club-room sits Captain Sentry, a gentleman of great courage, good understanding, but invincible modesty. He is one of those that deserve very well, but are very awkward at putting their talents within the observation of such as should take notice of them. He was some

years a captain, and behaved himself with great gallantry in several engagements, and at several sieges; but having a small estate of his own, and being next heir to Sir Roger, he has quitted a way of life, in which no man can rise suitably to his merit, who is not something of a courtier as well as a soldier. I have heard him often lament, that in a profession where merit is placed in so conspicuous a view, impudence should get the better of modesty. When he has talked to this purpose, I never heard him make a sour expression, but frankly confess that he left the world, because he was not fit for it. A strict honesty and an even regular behavior are in themselves obstacles to him that must press through crowds, who endeavor at the same end with himself, the favor of a commander. He will, however, in his way of talk, excuse generals for not disposing according to men's desert, or inquiring into it: for, says he, that great man who has a mind to help me, has as many to break through to come at me, as I have to come at him: therefore, he will conclude, that the man who would make a figure, especially in a military way, must get over all false modesty, and assist his patron against the importunity of other pretenders, by a proper assurance in his own vindication. He says, it is a civil cowardice to be backward in asserting what you ought to expect, as it is a military fear to be slow in attacking when it is your duty. With this candor does the gentleman speak of himself and others. The same frankness runs through all his conversation. The military part of his life has furnished him with many adventures, in the relation of which he is very agreeable to the company; for he is never over-bearing, though accustomed to command men in the utmost degree below him; nor ever too obsequious, from an habit of obeying men highly above him.

But that our society may not appear a set of humorists, unacquainted with the gallantries and pleasures of the age, we have among us the gallant Will Honeycomb, a gentleman who, according to his years, should be in the decline of his life, but, having ever been very careful of his person, and always had a very easy fortune, time has made but a very little impression, either by wrinkles on his forehead, or traces in his brain. His person is well turned, of a good height. He is very ready at that sort of discourse with which men usually entertain women. He has all his life dressed very well, and remembers habits as others do men. He can smile when one speaks to him, and laughs easily. He knows the history of every mode, and can inform you from what Frenchwoman our wives and daughters had this manner of curling their hair, that way of placing their hoods; and whose vanity to shew her foot made that part of the dress so short in such a year. In a word, all his conversation and knowledge have been in the female world: as other men of his age will take notice to you what such a minister said on such and such an occasion, he will tell you, when the Duke of Monmouth danced at court, such a woman was then smitten, another was taken with him at the head of his troop in the Park. For all these important relations, he has ever about the same time received a kind glance or a blow of a fan from some celebrated beauty, mother of the present Lord Such-a-one.

This way of talking of his very much enlivens the conversation, among us of a more sedate turn; and I find there is not one of the company, but myself, who rarely speak at all, but speaks of him as of that sort of man who is usually called a well-bred fine gentleman. To conclude his character, where women are not concerned, he is an honest worthy man.

I cannot tell whether I am to account him whom I am next to speak of, as one of our company; for he visits us but seldom, but when he does, it adds to every man else a new enjoyment of himself. He is a clergyman, a very philosophic man, of general learning, great sanctity of life, and the most exact good breeding. He has the misfortune to be of a very weak constitution; and consequently cannot accept of such cares and business as preferments in his function would oblige him to; he is therefore among divines what a chamber councillor is among lawyers. The probity of his mind, and the integrity of his life, create him followers, as being eloquent or loud advances others. He seldom introduces the subject he speaks upon; but we are so far gone in years that he observes, when he is among us, an earnestness to have him fall on some divine topic, which he always treats with much authority, as one who has no interests in this world, as one who is hastening to the object of all his wishes, and conceives hope from his decays and infirmities. These are my ordinary companions.—R.

No. 383. *Sir Roger and the Spectator go by water to Vauxhall Gardens.*

Criminibus debent hortos.
Juv. Sat. i. 75.

As I was siting in my chamber, and thinking on a subject for my next *Spectator*, I heard two or three irregular bounces at my landlady's door, and upon the opening of it, a loud cheerful voice inquiring whether the philosopher was at home. The child who went to the door answered very innocently, that he did not lodge there. I immediately recollected that it was my good friend Sir Roger's voice; and that I had promised to go with him on the water to Spring-garden, in case it proved a good evening. The knight put me in mind of my promise from the bottom of the staircase, but told me that if I was speculating, he would stay below till I had done. Upon my coming down, I found all the children of the family got about my old friend, and my landlady herself, who is a notable prating gossip, engaged in a conference with him: being mightily pleased with his stroking her little boy upon the head, and bidding him be a good child and mind his book.

We were no sooner come to the Temple-stairs, but we were surrounded with a crowd of water-men, offering us their respective services. Sir Roger, after having looked about him very attentively, spied one with a wooden leg, and immediately gave him orders to get his boat ready. As we were walking towards it, 'You must know,' says Sir Roger, 'I never make use of anybody to row me, that has not either lost a leg or an arm. I would rather bate him a few strokes of his oar than not employ an honest man that has been wounded in the Queen's service. If I was a lord or a bishop, and kept a barge, I would not put a fellow in my livery that had not a wooden leg.'

My old friend, after having seated himself and trimmed the boat with his coachman, who, being a very sober man, always serves for ballast on these occasions, we made the best of our way for Vaux-hall. Sir Roger obliged the waterman to give us the history of his right leg, and hearing that he had left it at La Hogue, with many particulars which passed in that glorious action, the knight, in the triumph of his heart, made several reflexions on the greatness of the British nation; as, that one Englishman could beat three Frenchmen; that we could never be in danger of popery so long as we took care of our fleet; that the Thames was the noblest river in Europe; that London bridge was a greater piece of work than any of the seven wonders of the world; with many other honest prejudices which naturally cleave to the heart of a true Englishman.

After some short pause, the old knight, turning about his head twice or thrice, to take a survey of this great metropolis, bid me observe how thick the city was set with churches, and that there was scarce a single steeple on this side Temple-bar. 'A most heathenish sight!' says Sir Roger: 'There is no religion at this end of the town. The fifty new churches will very much mend the prospect: but church-work is slow, church-work is slow.'

I do not remember I have anywhere mentioned, in Sir Roger's character, his custom of saluting everybody that passes by him with a good-morrow or a good-night. This the old man does out of the overflowings of his humanity, though at the same time it renders him so popular among all his country neighbors, that it is thought to have gone a good way in making him once or twice knight of the shire. He cannot forbear this exercise of benevolence even in town when he meets with any one in his morning or evening walk. It broke from him to several boats that passed by upon the water; but to the knight's great surprise, as he gave the good-night to two or three young fellows a little before our landing, one of them, instead of returning the civility, asked us, what queer old put we had in the boat, and whether he was not ashamed to go a wenching at his years? with a great deal of the like Thames ribaldry. Sir Roger seemed a little shocked at first, but at length assuming a face of magistracy, told us, *That if he were a Middlesex justice, he would make such vagrants know that her Majesty's subjects were no more to be abused by water than by land.*

We were now arrived at Spring-garden, which is exquisitely pleasant at this time of the year. When I considered the fragrancy of the walks and bowers, with the choirs of birds that sung upon the trees, and the loose tribe of people that walked under the shades, I could not but look upon the place as a kind of Mahometan paradise. Sir Roger told me it put him in mind of a little coppice by his house in the country, which his chaplain used to call an aviary of nightingales. 'You must understand,' says the knight, 'there is nothing in the world that pleases a man in love so much as your nightingale!' Ah, Mr. Spectator! the many moonlight nights that I have walked by myself and thought on the widow by the music of the nightingale? He here fetched a deep sigh, and was falling into a fit of musing, when a mask, who came behind him, gave him a gentle tap upon the shoulder, and asked him if he would drink a bottle of mead with her? But the knight being startled at so unexpected a familiarity, and displeased to be interrupted in his thoughts of the widow, told her, *She was a wanton baggage*, and bid her go about her business.

We concluded our walk with a glass of Burton ale, and a slice of hung beef. When we had done eating ourselves, the knight called a waiter to him, and bid him carry the remainder to the waterman that had but one leg. I perceived the fellow stared upon him at the oddness of the message, and was going to be saucy; upon which I ratified the knight's commands with a peremptory look.

As we were going out of the garden, my old friend thinking himself obliged, as a member of the *quorum*, to animadvert upon the morals of the place, told the mistress of the house, who sat at the bar, that he should be a better customer to her garden, if there were more nightingales, and fewer improper persons.—L.

[As year followed year, Addison seems to have felt the maintenance of the *Spectator*, unexampled as had been its success, an increasing burden, and to have cast about for the means of handsomely bringing it to a close. One obvious expedient was to kill off, or otherwise dispose of, the members of the Club. We find mention made accordingly, in No. 513, of the Clergyman as lying on his deathbed, and four numbers later the incomparable Sir Roger himself is made to succumb to fate. On the whole, Addison's management of the character had been little interfered with by the other contributors. In a paper (No. 174), probably written by Steele, the knight holds an entertaining argument with Sir Andrew Freeport on the merits of trade; and in one by Budgell (No. 359), he is made to discourse on *beards* in a style neither edifying nor witty. A slight mention of him occurs in No. 359. But about a month after the appearance of Addison's paper, just printed, describing Sir Roger's visit to Vauxhall, Steele introduced him (No. 410) as the hero of a questionable and unseemly adventure, in which the reader is presented with the disagreeable alternative of considering the poor old knight either as a knave or a fool. He is described as falling in with a girl called Sukey in the Temple cloisters, with whose appearance and manners he is so much taken that he gives her a dinner at a tavern, invites her to come to his lodgings, and promises that if she comes down into the country she shall be encouraged. This made Addison very angry; he is said to have had a sharp altercation with Steele, and he resolved to send the darling of his imagination to the land where the "wicked cease from troubling," and no rude hand could mar the sweet image of simplicity and goodness which he desired should be the final result, in the minds of thousands of readers, of the contemplation of Sir Roger's character.

No. 159. *The Vision of Mirzah.*

Omnem, quæ nunc obducta tuenti
Mortales hebetat visus tibi, et humida circum
Caligat, nubem eripiam.—VIRG. Æn. 2. 64.

When I was at Grand Cairo, I picked up several oriental manuscripts, which I have still by me. Among others I met with one entitled *The Visions of Mirzah*, which I have read over with great pleasure. I intend to give it to the public when I have no other entertainment for them, and shall begin with the first vision, which I have translated word for word as follows:

'On the fifth day of the moon, which, according to the custom of my forefathers, I always kept holy, after having washed myself, and offered up my morning devotions, I ascended the high hills of Bagdat, in order to pass the rest of the day in meditation and prayer. As I was here airing myself on the tops of the mountains, I fell into a profound contemplation on the vanity of human life; and passing from one thought to another, 'Surely,' said I, 'man is but a shadow, and life a dream.' Whilst I was thus musing, I cast my eyes towards the summit of a rock that was not far from me, where I discovered one in the habit of a shepherd, with a little musical instrument in his hand. As I looked upon him, he applied it to his lips, and began to play upon it. The sound of it was exceeding sweet, and wrought into a variety of tunes that were inexpressibly melodious, and altogether different from anything I had ever heard: they put me in mind of those heavenly airs that are played to the departed souls of good men upon their first arrival in Paradise, to wear out the impressions of the last agonies, and qualify them for the pleasures of that happy place. My heart melted away in secret raptures.

'I had been often told that the rock before me was the haunt of a genius, and that several had been entertained with music who had passed by it, but never heard that the musician had before made himself visible. When he had raised my thoughts by those transporting airs which he played, to taste the pleasures of his conversation, as I looked upon him like one astonished, he beckoned to me, and by the waving of his hand directed me to approach the place where he sat. I drew near with that reverence which is due to a superior nature; and as my heart was entirely subdued by the captivating strains I had heard, I fell down at his feet and wept. The genius smiled upon me with a look of compassion and affability that familiarized him to my imagination, and at once dispelled all the fears and apprehensions with which I approached him. He lifted me from the ground, and taking me by the hand, 'Mirzah,' said he, 'I have heard thee in thy soliloquies; follow me.'

'He then led me to the highest pinnacle of the rock, and placing me on the top of it, 'Cast thy eyes eastward,' said he 'and tell me what thou seest.' 'I see,' said I, 'a huge valley, and a prodigious tide of water rolling through it.' 'The valley that thou seest,' said he, 'is the vale of misery, and the tide of water that thou seest is part of the great tide of eternity.' 'What is the reason,' said I, 'that the tide I see rises out of a thick mist at one end, and again loses itself in a

thick mist at the other?' 'What thou seest,' said he, 'is that portion of eternity which is called time, measured out by the sun, and reaching from the beginning of the world to its consummation. Examine now,' said he, 'this sea that is thus bounded with darkness at both ends, and tell me what thou discoverest in it.' 'I see a bridge,' said I, 'standing in the midst of the tide.' 'That bridge thou seest,' said he, 'is human life: consider it attentively.' Upon a more leisurely survey of it, I found that it consisted of threescore and ten entire arches, with several broken arches, which, added to those that were entire, made up the number about an hundred. As I was counting the arches, the genius told me that this bridge consisted at first of a thousand arches; but that a great flood swept away the rest, and left the bridge in the ruinous condition I now beheld it. 'But tell me further,' said he, 'what thou discoverest on it.' 'I see multitudes of people passing over it,' said I, 'and a black cloud hanging on each end of it.' As I looked more attentively, I saw several of the passengers dropping through the bridge, into the great tide that flowed underneath it; and upon farther examination, perceived there were innumerable trap-doors that lay concealed in the bridge, which the passengers no sooner trod upon, but they fell through into the tide, and immediately disappeared. These hidden pit-falls were set very thick at the entrance of the bridge, so that throngs of people no sooner broke through the cloud, but many of them fell into them. They grew thinner towards the middle, but multiplied and lay closer together towards the end of the arches that were entire.

'There were indeed some persons, but their number was very small, that continued a kind of hobbling march on the broken arches, but fell through one after another, being quite tired and spent with so long a walk.

'I passed some time in the contemplation of this wonderful structure, and the great variety of objects which it presented. My heart was filled with a deep melancholy to see several dropping unexpectedly in the midst of mirth and jollity, and catching at every thing that stood by them to save themselves. Some were looking up towards the heavens in a thoughtful posture, and in the midst of a speculation stumbled and fell out of sight. Multitudes were very busy in the pursuit of bubbles that glittered in their eyes and danced before them, but often, when they thought themselves within the reach of them, their footing failed, and down they sunk. In this confusion of objects, I observed some with scimitars in their hands, and others with pill-boxes, who ran to and fro upon the bridge, thrusting several persons on trap-doors which did not seem to lie in their way, and which they might have escaped had they not been thus forced upon them.

'The genius, seeing me indulge myself in this melancholy prospect, told me I had dwelt long enough upon it; 'Take thine eyes off the bridge,' said he, 'and tell me if thou yet seest anything thou dost not comprehend.' Upon looking up, 'What mean,' said I 'those great flights of birds that are perpetually hovering about the bridge, and settling upon it from time to time? I see vultures, harpies, ravens, cormorants, and among many other feathered creatures several little winged boys, that perch in great numbers upon the middle arches.' 'These,' said the genius, 'are envy, avarice, superstition, despair, love, with the like cares and passions that infest human life.'

'I here fetched a deep sigh; 'Alas,' said I, 'man was made in vain! how is he given away to misery and mortality! tortured in life, and swallowed up in death!' The genius, being moved with compassion towards me, bid me quit so uncomfortable a prospect. 'Look no more,' said he, 'on man in the first stage of his existence, in his setting out for eternity; but cast thine eye on that thick mist into which the tide bears the several generations of mortals that fall into it.' I directed my sight as I was ordered, and (whether or no the good genius strengthened it with a supernatural force, or dissipated part of the mist that was before too thick for the eye to penetrate) I saw the valley opening at the further end, and spreading forth into an immense ocean, that had a huge rock of adamant running through the midst of it, and dividing it into two equal parts. The clouds still rested on one half of it, insomuch that I could discover nothing in it: but the other appeared to me a vast ocean planted with innumerable islands, that were covered with fruits and flowers, and interwoven with a thousand little shinning seas that ran among them. I could see persons dressed in glorious habits, with garlands upon their heads, passing among the trees, lying down by the sides of the fountains, or resting on beds of flowers; and could hear a confused harmony of singing birds, falling waters, human voices, and musical instruments. Gladness grew in me upon the discovery of so delightful a scene. I wished for the wings of an eagle, that I might fly away to those happy seats; but the genius told me that there was no passage to them, except through the gates of death that I saw opening every moment upon the bridge. 'The islands,' said he, 'that lie so fresh and green before thee, and with which the whole face of the ocean appears spotted as far as thou canst see, are more in number than the sands on the sea-shore; there are myriads of islands behind those which thou here discoverest, reaching further than thine eye or even thine imagination can extend itself. These are the mansions of good men after death, who, according to the degree and kinds of virtue in which they excelled, are distributed among these several islands, which abound with pleasures of different kinds and degrees, suitable to the relishes and perfections of those who are settled in them; every island is a paradise accommodated to its respective inhabitants. Are not these, O Mirzah, habitations worth contending for? Does life appear miserable, that gives thee opportunities of earning such a reward? is death to be feared, that will convey thee to so happy an existence? Think not man was made in vain, who has such an eternity reserved for him.' I gazed with inexpressible pleasure on these happy islands. At length, said I, 'Shew me now, I beseech thee, the secrets that lie hid under those dark clouds which cover the ocean on the other side of the rock of adamant.' The genius making me no answer, I turned about to address him a second time, but I found that he had left me; I then turned again to the vision which I had been so long contemplating; but instead of the rolling tide, the arched bridge, and the happy islands, I saw nothing but the long hollow valley of Bagdat, with oxen, sheep, and camels grazing upon the sides of it.'—C.

[The end of the first vision of Mirzah.

No. 120. *On Instinct; adaptations between animal structure and natural arrangements; affection of animals for their young; reason and instinct contrasted; case of the hen.*

Equidem credo, quia sit divinitus illis
Ingenium. VIRG. Georg. i. 451.

I think their breasts with heav'nly souls inspir'd.
DRYDEN.

My friend Sir Roger is very often merry with me upon my passing so much of my time among his poultry. He has caught me twice or thrice looking after a bird's nest, and several times sitting an hour or two together near an hen and chickens. He tells me he believes I am personally acquainted with every fowl about his house; calls such a particular cock my favorite; and frequently complains that his ducks and geese have more of my company than himself.

I must confess I am infinitely delighted with those speculations of nature which are to be made in a country

life; and as my reading has very much lain among books of natural history, I cannot forbear recollecting upon this occasion the several remarks which I have met with in authors, and comparing them with what falls under my own observation: the arguments for providence drawn from the natural history of animals being in my opinion demonstrative.

The make of every kind of animal is different from that of every other kind; and yet there is not the least turn in the muscles or twist in the fibres of any one, which does not render them more proper for that particular animal's way of life than any other cast or texture of them would have been.

The most violent appetites in all creatures are *lust* and *hunger*: the first is a perpetual call upon them to propagate their kind; the latter to preserve themselves.

It is astonishing to consider the different degrees of care that descend from the parent to the young, so far as is absolutely necessary for the leaving a posterity. Some creatures cast their eggs as chance directs them, and think of them no farther; as insects and several kinds of fish: others, of a nicer frame, find out proper beds to deposit them in, and there leave them; as the serpent, the crocodile, and ostrich: others hatch their eggs and tend the birth, till it is able to shift for itself.

What can we call the principle which directs every different kind of bird to observe a particular plan in the structure of its nest, and directs all the same species to work after the same model? It cannot be *imitation;* for though you hatch a crow under a hen, and never let it see any of the works of its own kind, the nest it makes shall be the same, to the laying of a stick, with all the other nests of the same species. It cannot be *reason*; for were animals endued with it to as great a degree as man, their buildings would be as different as ours, according to the different conveniences that they would propose to themselves.

Is it not remarkable, that the same temper of weather, which raises this genial warmth in animals, should cover the trees with leaves, and the fields with grass, for their security and concealment, and produce such infinite swarms of insects for the support and sustenance of their respective broods?

Is it not wonderful, that the love of the parent should be so violent while it lasts, and that it should last no longer than is necessary for the preservation of the young?

The violence of this natural love is exemplified by a very barbarous experiment: which I shall quote at length, as I find it in an excellent author, and hope my readers will pardon my mentioning such an instance of cruelty, because there is nothing can so effectually shew the strength of that principle in animals of which I am here speaking. 'A person who was well skilled in dissections opened a bitch, and as she lay in the most exquisite tortures, offered her one of her young puppies, which she immediately fell a licking, and for the time seemed insensible of her own pain: on the removal, she kept her eye fixed on it, and began a wailing sort of cry, which seemed rather to proceed from the loss of her young one, than the sense of her own torments.'

But notwithstanding this natural love in brutes is much more violent and intense than in rational creatures, Providence has taken care that it should be no longer troublesome to the parent than it is useful to the young; for so soon as the wants of the latter cease, the mother withdraws her fondness, and leaves them to provide for themselves; and, what is a very remarkable circumstance in this part of instinct, we find that the love of the parent may be lengthened out beyond its usual time, if the preservation of the species requires it; as we may see in birds that drive away their young as soon as they are able to get their livelihood, but continue to feed them if they are tied to the nest, or confined within a cage, or by any other means appear to be out of a condition of supplying their own necessities.

This natural love is not observed in animals to ascend from the young to the parent, which is not at all necessary for the continuance of the species: nor indeed in reasonable creatures does it rise in any proportion, as it spreads itself downwards; for, in all family affection, we find protection granted and favors bestowed are greater motives to love and tenderness, than safety, benefits, or life received.

One would wonder to hear sceptical men disputing for the reason of animals, and telling us it is only our pride and prejudices that will not allow them the use of that faculty.

Reason shews itself in all occurrences of life; whereas the brute makes no discovery of such a talent but in what immediately regards his own preservation, or the continuance of his species. Animals in their generation are wiser than the sons of men; but their wisdom is confined to a few particulars, and lies in a very narrow compass. Take a brute out of his instinct, and you find him wholly deprived of understanding. To use an instance that comes often under observation:

With what caution does the hen provide herself a nest in places unfrequented, and free from noise and disturbance? When she has laid her eggs in such a manner that she can cover them, what care does she take in turning them frequently, that all parts may partake of the vital warmth? When she leaves them to provide for her necessary sustenance, how punctually does she return before they have time to cool, and become incapable of producing an animal? In the summer you see her giving herself greater freedoms, and quiting her care for above two hours together: but in winter, when the rigor of the season would chill the principles of life, and destroy the young one, she grows more assiduous in her attendance, and strays away but half the time. When the birth approaches, with how much nicety and attention does she help the chick to break its prison? Not to take notice of her covering it from the injuries of the weather, providing it proper nourishment, and teaching it to help itself; nor to mention her forsaking the nest, if after the usual time of reckoning the young one does not make its appearance. A chymical operation could not be followed with greater art or diligence, than is seen in the hatching of a chick; though there are many other birds that shew an infinitely greater sagacity in all the forementioned particulars.

But at the same time, the hen, that has all this seeming ingenuity (which is indeed absolutely necessary for the propagation of the species), considered in other respects, is without the least glimmerings of thought or common sense. She mistakes a piece of chalk for an egg, and sits upon it in the same manner: she is insensible of any increase or diminution in the number of those she lays: she does not distinguish between her own and those of another species, when the birth appears of never so different a bird, will cherish it for her own. In all these circumstances, which do not carry an immediate regard to the subsistence of herself or her species, she is a very idiot.

There is not, in my opinion, anything more mysterious in nature than this instinct in animals, which thus rises above reason, and falls infinitely short of it. It cannot be accounted for by any properties in matter, and at the same time works after so odd a manner, that one cannot think it the faculty of an intellectual being. For my own part I look upon it as upon the principle of gravitation in bodies, which is not to be explained by any known qualities inherent in the bodies themselves, nor from any laws of mechanism, but, according to the best notions of the greatest philosophers, is an immediate impression from the first Mover, and the divine energy acting in the creatures.—L

No. 565. *Sun-set; the starry heavens; meditation on the infinity of Created Nature; human limitation; the omnipresence and omniscience of God.*

Deum namque ire per omnes
Terrasque, tractusque maris, cœlumque profundum.
VIRG. Georg. iv. 221.

I was yesterday about sun-set walking in the open fields, till the night insensibly fell upon me. I at first amused myself with all the richness and variety of colors, which appeared in the western parts of heaven: in proportion as they faded away and went out, several stars and planets appeared one after another, till the whole firmament was in a glow. The blueness of the æther was exceedingly heightened and enlivened by the season of the year, and by the rays of all those luminaries that passed through it. The galaxy appeared in its most beautiful white. To complete the scene, the full moon rose at length in that clouded majesty which Milton takes notice of, and opened to the eye a new picture of nature, which was more finely shaded, and disposed among softer lights, than that which the sun had before discovered to us.

As I was surveying the moon walking in her brightness, and taking her progress among the constellations, a thought rose in me which I believe very often perplexes and disturbs men of serious and contemplative natures. David himself fell into it in that reflexion, *When I consider the heavens, the work of thy fingers, the moon and the stars which thou hast ordained; what is man, that thou art mindful of him? and the son of man that thou regardest him?* In the same manner, when I considered that infinite host of stars, or, to speak more philosophically, of suns, which were then shining upon me, with those innumerable sets of planets or worlds, which were moving round their respective suns; when I still enlarged the idea, and supposed another heaven of suns and worlds rising still above this which we discovered, and these still enlightened by a superior firmament of luminaries, which are planted at so great a distance that they may appear to the inhabitants of the former as the stars to us; in short, whilst I pursued this thought, I could not but reflect on that little insignificant figure which I myself bore amidst the immensity of God's works.

Were the sun, which enlightens this part of the creation, with all the host of planetary worlds that move about him, utterly extinguished and annihilated, they would not be missed, more than a grain of sand upon the sea-shore. The space they possess is so exceedingly little in comparison of the whole, that it would scare make a blank in the creation. The chasm would be imperceptible to an eye, that could take in the whole compass of nature, and pass from one end of the creation to the other; as it is possible there may be such a sense in ourselves hereafter, or in creatures which are at present more exalted than ourselves. We see many stars by the help of glasses, which we do not discover with our naked eyes; and the finer our telescopes are, the more still are our discoveries. Huygenius carries this thought so far, that he does not think it impossible there may be stars whose light is not yet travelled down to us, since their first creation. There is no question but the universe has certain bounds set to it; but when we consider that it is the work of infinite power, prompted by infinite goodness, with an infinite space to exert itself in, how can our imagination set any bounds to it?

To return therefore to my first thought, I could not but look upon myself with secret horror, as a being that was not worth the smallest regard of one who had so great a work under his care and superintendency. I was afraid of being overlooked amidst the immensity of nature, and lost among that infinite variety of creatures, which in all probability swarm through all these immeasurable regions of matter.

In order to recover myself from this mortifying thought, I considered that it took its rise from those narrow conceptions, which we are apt to entertain of the divine nature. We ourselves cannot attend to many different objects at the same time. If we are careful to inspect some things, we must of course neglect others. This imperfection which we observe in ourselves, is an imperfection that cleaves in some degree to creatures of the highest capacities, as they are creatures, that is, beings of finite and limited natures. The presence of every created being is confined to a certain measure of space, and consequently his observation is stinted to a certain number of objects. The sphere in which we move and act and understand, is of a wider circumference to one creature than another, according as we rise one above another in the scale of existence. But the widest of these our spheres has its circumference. When therefore we reflect on the divine nature, we are so used and accustomed to this imperfection in ourselves, that we cannot forbear in some measure ascribing it to Him in whom there is no shadow of imperfection. Our reason indeed assures us that his attributes are infinite, but the poorness of our conceptions is such that it cannot forbear setting bounds to everything it contemplates, till our reason comes again to our succour, and throws down all those little prejudices which rise in us unawares, and are natural to the mind of man.

If we consider Him in his omnipresence: His being passes through, actuates, and supports the whole frame of nature. His creation, and every part of it, is full of him. There is nothing he has made, that is either so distant, so little, or so inconsiderable, which he does not essentially inhabit. His substance is within the substance of every being, whether material or immaterial, and as intimately present to it, as that being is to itself. It would be an imperfection in him, were he able to remove out of one place into another, or to withdraw himself from anything he has created, or from any part of that space which is diffused and spread abroad to infinity. In short, to speak of him in the language of the old philosopher, he is a being whose centre is every where, and his circumference no where.

In the second place, he is omniscient as well as omnipresent. His omniscience indeed necessarily and naturally flows from his omnipresence. He cannot but be conscious of every motion that arises in the whole material world, which he thus essentially pervades; and of every thought that is stirring in the intellectual world, to every part of which he is thus intimately united. Several moralists have considered the creation as the temple of God, which he has built with his own hands, and which is filled with his presence. Others have considered infinite space as the receptacle or rather the habitation of the Almighty: but the noblest and most exalted way of considering this infinite space is that of Sir Isaac Newton, who calls it the *sensorium* of the Godhead. Brutes and men have their *sensoriola*, or little *sensoriums*, by which they apprehend the presence, and perceive the actions, of a few objects that lie contiguous to them. Their knowledge and observation turns within a very narrow circle. But as God Almighty cannot but perceive and know every thing in which he resides, infinite space gives room to infinite knowledge, and is, as it were, an organ to omniscience.

Were the soul separate from the body, and with one glance of thought should start beyond the bounds of the creation, should it for millions of years continue its progress through infinite space with the same activity, it would still find itself within the embrace of its Creator, and encompassed round with the immensity of the Godhead. Whilst we are in the body he is not less present with us, because he is concealed from us. 'O that I knew where I might find him!' says Job. 'Behold, I go forward, but he is not there; and backward, but I cannot perceive him: on the left hand

where he does work, but I cannot behold him: he hideth himself on the right hand, that I cannot see him.' In short, reason as well as revelation assures us, that he cannot be absent from us, notwithstanding he is undiscovered by us.

In this consideration of God Almighty's omnipresence and omniscience every uncomfortable thought vanishes. He cannot but regard everything that has being, especially such of his creatures who fear they are not regarded by him. He is privy to all their thoughts, and to that anxiety of heart in particular, which is apt to trouble them on this occasion: for as it is impossible he should overlook any of his creatures, so we may be confident that he regards with an eye of mercy those who endeavor to recommend themselves to his notice, and in an unfeigned humility of heart think themselves unworthy that he should be mindful of them.

BURNS.

With many misgivings as to whether we are selecting wisely, we decide to give our readers, for their trial of Burns's quality as poet, his famous poem of "Tam O'Shanter." This is upon the whole, among his longer pieces, the one most truly characteristic of Burns's genius and character. We might have chosen "The Cotter's Saturday Night" instead. This is certainly a far purer and far loftier poem, but, precisely in being such, it is less racy of the author's real self. It is conventional, rather than individual. Taken as a sample of Burns, it would lead readers to expect a different poet from the poet that they would find in Burns, if they should read him indiscriminately or altogether. He has produced some exquisitely pure, tender, beautiful poetry, but it almost seems as if it were always an even chance with him, whether what he began to write would prove chaste and sweet, or the reverse. To use his own language,

"Perhaps it may turn out a sang,
Perhaps turn out a sermon."

He died at thirty-six, still, as in a biography and criticism of him, quite sympathetic and eulogistic enough, Carlyle justly says, essentially a "youth," not yet fairly a man, and, alas, sadly full of the faults of youth, the victim of passions he had never learned to bridle. Poor Burns! By the way, let our readers buy for three cents the American Book Exchange's edition of Carlyle's monograph, and have at the same time a specimen of Carlyle at his best, and a wholesome and generous estimate of Burns. Carlyle wrote his "Burns" before he ceased writing the English language and took to writing Carlylese. It ought to be added that Burns is one of the most distinctly and intensely national of poets. Scotch is he of the Scotch, scarcely to be read by an Englishman or an American without the help of a glossary. We provide a glossary herewith for "Tam O'Shanter." If our readers think that this piece has improprieties in it, let them understand that those improprieties represent Burns, and further that they are mild improprieties compared with others that the random eye would be sure to light upon in the turning of Burns's mingled pages.

TAM O'SHANTER.

A TALE.

Of Brownyis and of Bogilis full is this Buke.
GAWIN DOUGLAS.

When chapman billies leave the street,
And drouthy neebors, neebors meet,
As market-days are wearing late,
An' folk begin to tak the gate;
While we sit bousing at the nappy,
An' getting fou and unco happy,
We thinkna on the lang Scots miles,
The mosses, waters, slaps, and styles,
That lie between us and our hame,
Whare sits our sulky sullen dame,
Gathering her brows like gathering storm,
Nursing her wrath to keep it warm.
This truth fand honest Tam o' Shanter,
As he frae Ayr ae night did canter,
(Auld Ayr, wham ne'er a town surpasses,
For honest men and bonie lasses).
O Tam! hadst thou but been sae wise,
As ta'en thy ain wife Kate's advice!
She tauld thee weel thou wast a skellum,
A blethering, blustering, drunken blellum;
That frae November till October,
Ae market-day thou was na sober;
That ilka melder, wi' the miller,
Thou sat as lang as thou had siller;
That ev'ry naig was ca'd a shoe on,
The smith and thee gat roaring fou on;
That at the Lord's house, ev'n on Sunday,
Thou drank wi' Kirton Jean till Monday.
She prophesy'd that, late or soon,
Thou would be found deep drown'd in Doon;
Or catch'd wi' warlocks in the mirk,
By Alloway's auld haunted kirk.
Ah, gentle dames! it gars me greet,
To think how monie counsels sweet,
How mony lengthen'd, sage advices,
The husband frae the wife despises!
But to our tale: Ae market night,
Tam had got planted unco right;
Fast by an ingle, bleezing finely,
Wi' reaming swats, that drank divinely;
And at his elbow, Souter Johnny,
His ancient, trusty, drouthy crony;
Tam lo'ed him like a vera brither;
They had been fou for weeks thegither.
The night drave on wi' sangs and clatter;
And ay the ale was growing better:
The landlady and Tam grew gracious,
Wi' favours, secret, sweet, and precious:
The souter tauld his queerest stories;
The landlord's laugh was ready chorus:
The storm without might rair and rustle,
Tam did na mind the storm a whistle.
Care, mad to see a man sae happy,
E'en drown'd himsel amang the nappy:
As bees flee hame wi' lades o' treasure,
The minutes wing'd their way wi' pleasure;
Kings may be blest, but Tam was glorious,
O'er a' the ills o' life victorious!
But pleasures are like poppies spread,
You seize the flow'r, its bloom is shed;
Or like the snow-falls in the river,
A moment white—then melts for ever;
Or like the borealis race,
That flit ere you can point their place;
Or like the rainbow's lovely form
Evanishing amid the storm.—
Nae man can tether time or tide;—
The hour approaches Tam maun ride;
That hour, o' night's black arch the key-stane,
That dreary hour he mounts his beast in;
And sic a night he taks the road in,
As ne'er poor sinner was abroad in.
The wind blew as 'twad blawn its last;
The rattling show'rs rose on the blast;
The speedy gleams the darkness swallow'd;
Loud, deep, and lang, the thunder bellow'd:
That night, a child might understand,
The Deil had business on his hand.
Weel mounted on his gray mare, Meg,
A better never lifted leg,
Tam skelpit on thro' dub and mire,
Despising wind, and rain, and fire;
Whiles holding fast his gude blue bonnet;
Whiles crooning o'er some auld Scots sonnet;
Whiles glow'ring round wi' prudent cares,
Lest bogles catch him unawares;
Kirk-Alloway was drawing nigh,
Whare ghaists and houlets nightly cry.—
By this time he was cross the ford,
Whare in the snaw, the chapman smoor'd;
And past the birks and meikle stane,
Whare drunken Charlie brak's neck-bane;
And thro' the whins, and by the cairn,
Whare hunters fand the murder'd bairn;
And near the thorn, aboon the well,
Whare Mungo's mither hang'd hersel.—
Before him Doon pours all his floods;
The doubling storm roars thro' the woods;
The lightnings flash from pole to pole;
Near and more near the thunders roll:
When, glimmering thro' the groaning trees,
Kirk-Alloway seem'd in a bleeze;
Thro' ilka bore the beams were glancing;
And loud resounded mirth and dancing.—
Inspiring bold John Barleycorn!
What dangers thou canst make us scorn!
Wi' tippeny, we fear nae evil;

Wi' usquebae, we'll face the devil!—
The swats sae ream'd in Tammie's noddle,
Fair play, he car'd na deils a boddle.
But Maggie stood right sair astonish'd,
Till, by the heel and hand admonish'd,
She ventur'd forward on the light;
And, vow! Tam saw an unco sight!
Warlocks and witches in a dance;
Nae cotillon brent new frae France,
But hornpipes, jigs, strathspeys, and reels,
Put life and mettle in their heels.
A winnock-bunker in the east,
There sat auld Nick, in shape o' beast;
A towzie tyke, black, grim, and large,
To gie them music was his charge:
He screw'd the pipes and gart them skirl,
Till roof and rafters a' did dirl.—
Coffins stood round like open presses,
That shaw'd the dead in their last dresses;
And by some devilish cantrip slight
Each in its cauld hand held a light,—
By which heroic Tam was able
To note upon the haly table,
A murderer's banes in gibbet airns;
Twa span-lang, wee, unchristen'd bairns;
A thief, new-cutted frae the rape,
Wi' his last gasp his gab did gape;
Five tomahawks, wi' blude red rusted;
Five scymitars, wi' murder crusted;
A garter, which a babe had strangled;
A knife, a father's throat had mangled,
Whom his ain son o' life bereft,
The grey hairs yet stack to the heft;
Wi' mair o' horrible and awfu',
Which ev'n to name wad be unlawfu'.
As Tammie glowr'd, amaz'd, and curious,
The mirth and fun grew fast and furious:
The piper loud and louder blew;
The dancers quick and quicker flew;
They reel'd, they set, they cross'd, they cleekit,
Till ilka carlin swat and reekit,
And coost her duddies to the wark,
And linket at it in her sark!
Now Tam, O Tam! had thae been queans,
A' plump and strapping in their teens;
Their sarks, instead o' creeshie flannen,
Been snaw-white seventeen hunder linnen!
Thir breeks o' mine, my only pair,
That ance were plush, o' gude blue hair,
I wad hae gi'en them off my hurdies,
For ae blink o' the bonie burdies!
But wither'd beldams, auld and droll,
Rigwooddie hags wad spean a foal,
Lowping and flinging on a crummock,
I wonder didna turn thy stomach.
But Tam kend what was what fu' brawlie,
There was ae winsome wench and walie,
That night enlisted in the core,
(Lang after kend on Carrick shore;
For mony a beast to dead she shot,
And perish'd mony a bonie boat,
And shook baith meikle corn and bear,
And kept the country-side in fear)
Her cutty sark, o' Paisley harn,
That while a lassie she had worn,
In longitude tho' sorely scanty,
It was her best, and she was vauntie.—
Ah! little kend thy reverend grannie,
That sark she coft for her wee Nannie,
Wi' twa pund Scots ('twas a' her riches),
Wad ever grac'd a dance of witches!
But here my muse her wing maun cour;
Sic flights are far beyond her pow'r;
To sing how Nannie lap and flang,
(A souple jade she was, and strang),
And how Tam stood, like ane bewitch'd,
And thought his very een enrich'd;
Even Satan glowr'd, and fidg'd fu' fain,
And hotch'd and blew wi' might and main:
Till first ae caper, syne anither,
Tam tint his reason a' thegither,
An roars out, "Weel done, Cutty-sark!"
And in an instant all was dark:
And scarcely had he Maggie rallied,
When out the hellish legion sallied.
As bees bizz out wi' angry fyke,
When plundering herds assail their byke;
As open pussie's mortal foes,
When, pop! she starts before their nose;
As eager runs the market-crowd,
When, "Catch the thief!" resounds aloud;
So Maggie runs, the witches follow,
Wi' monie an eldritch skreech and hollow.
Ah, Tam! ah, Tam! thou'll get thy fairin!
In hell they'll roast thee like a herrin!
In vain thy Kate awaits thy comin!
Kate soon will be a woefu' woman!
Now, do thy speedy utmost, Meg,
And win the key-stane of the brig;
There at them thou thy tail may toss,
A running stream they darena cross.
But ere the key-stane she could make,
The fient a tail she had to shake!
For Nannie, far before the rest,
Hard upon noble Maggie prest,
And flew at Tam wi' furious ettle;
But little wist she Maggie's mettle—
Ae spring brought off her master hale,
But left behind her ain gray tail:
The carlin claught her by the rump,
And left poor Maggie scarce a stump.
Now, wha this tale o' truth shall read,
Ilk man and mother's son, tak heed;
Whene'er to drink you are inclin'd,
Or cutty-sarks run in your mind,
Think, ye may buy the joys o'er dear,
Remember Tam o' Shanter's mare.

GLOSSARY TO TAM O'SHANTER.

A

Ae, One.
Ain, Own.
Airn, Iron.
Auld, Old.

B

Bane, Bone.
Billie, A brother, a youth.
Birg, A bridge.
Bizz, To buzz.
Blellum, Idle, talking fellow.
Blether, To talk idly, nonsense.
Blink, A smiling look.
Boddle, A small coin.
Bonie, Handsome, beautiful.
Bousing, Drinking.
Brawlie, Very well, finely, heartily.
Brent, Smooth.
Bunker, A window-seat,
Byke, A bee-hive.

C

Ca'd, Called, driven.
Cairn, A loose heap of stones.
Cantrip, A charm, a spell.
Carlin, A stout old woman.
Cleeket, Caught.
Coft, Bought.
Coost, Cast.
Crummock, A cow with a crooked horn.

D

Dirl, To tremble.
Drouthy, Thirsty.

E

Een, Eye.
Eldritch, Ghastly, frightful.
Ettle, Attempt.

F

Faint, A fiend.
Fairin, A fairing, a present.
Fand, Did find.
Fidg't, Fidgeted.
Fou, Full, drunk.
Frae, From.
Fyke, Trifling cares.

G

Gab, Mouth, to speak boldly, pertly.
Gar, To make, to force to.
Garb, Forced.
Glow'ring, Staring, looking.
Greet, To weep.

H

Hame, Home.
Harn, Very coarse linen.
Hotch'd, Turned topsy-turvy.
Howlet, An owl.
Hurdies, The loins.

I

Ilka, Each, every.
Ingle, Fire, fire-place.

M

Maun, Must.
Meikle, Much.
Melder, Corn, grain.
Mirk, Dark.

N

Naig, A horse.
Nappy, Brisk ale, to be tipsy.

O

Owlet, An owl.

P

Pund, Pound.

R

Rair, Roar.
Ream, To cream, to mantle.
Reaming, Brimfull, frothing.
Rigwooddie, A rope made of ridge willows.

S

Sae, So.
Sark, Shirt,
Siller, Silver, money.
Skelp, To walk with a tripping step.
Skellum, A worthless fellow.
Skirl, To shriek, to cry.
Slap, A breach in a fence.
Smoor, To smother.
Swat, Did sweat.
Swats, Drink, good ale.
Syne, Since, ago, then.

T

Ta'en, Taken.
Thegither, Together.
Tint, Lost.
Towzie, Rough, shaggy.
Twad, It would.
Tyke, A dog.

U

Unco, Very.

W

Walie, Ample, large, jolly.
Warlock, A wizard.
Whins, Underbush, sheep pasture.
Whiles, Sometimes.
Winnock, A window.

TENNYSON.

Alfred Tennyson, (Poet-laureate, that is, court-poet of England, appointed to his office by the crown, and having it for his duty to celebrate important events in the history of the nation, or of the reigning family, with odes and lyrics,) has already fulfilled a long and fruitful career in literature. It is now almost half a century since he first began to publish, and his muse is active and industrious still. He has confined his production strictly to verse. Scarcely a line of prose from his hand has found its way into print. Perhaps no poet has during his life-time enjoyed a larger measure of fame and of wealth resulting from his work, and it may justly be added, few have better deserved their reward. Tennyson, whether properly and evangelically a Christian or not, has always written purely and conscientiously. His poetry is all of it friendly and helpful to virtue.

As a specimen of his work we present to our readers his "Guinevere." This is one of the series of "Idylls of the King" so-called, the king being the legendary British king Arthur, whom the poet makes his ideal of all princely and manly and Christian virtue. (The word idyll, properly a "little picture," is used by Tennyson to designate modestly a story separated from the general tenor of events, and told, as it were, by itself. The name, adopted when perhaps the poet had no design of producing so extensive a work, has been retained since the various pieces have been gathered into a cycle composing something like an epic.) This ideal king Arthur marries a princess known in legend as Queen Guinevere. Guinevere, glorious in beauty, but weak in virtue and in will, proves false to Arthur, and gives herself in love to one of Arthur's knights, Sir Lancelot. Their guilty relation to each other is detected at length, and, just before the imminent ruin of Arthur's kingdom, Queen Guinevere flees, half in fear, half in penitence, to a convent in Almesbury. Here the king visits her, and now the story explains itself. We are much inclined to think that if all the poetry in the world were ransacked in the search, nothing surpassing this poem of Guinevere in pathos and in moral sublimity, would be found. It is easy for the devout Christian reader to put a spiritual interpretation upon the text, and imagine at points that it is the Bridegroom of souls that is talking to a backslidden heart seeking return.

GUINEVERE.

Queen Guinevere had fled the court, and sat
There in the holy house at Almesbury
Weeping, none with her save a little maid,
A novice: one low light betwixt them burn'd
Blurr'd by the creeping mist, for all abroad,
Beneath a moon unseen albeit at full,
The white mist, like a face-cloth to the face,
Clung to the dead earth, and the land was still.

For hither had she fled, her cause of flight
Sir Modred; he that like a subtle beast
Lay couchant with his eyes upon the throne,
Ready to spring, waiting a chance: for this,
He chill'd the popular praises of the King
With silent smiles of slow disparagement;
And tamper'd with the Lords of the White Horse,
Heathen, the brood by Hengist left; and sought
To make disruption in the Table Round
Of Arthur and to splinter it into feuds
Serving his traitorous end; and all his aims
Were sharpen'd by strong hate for Lancelot.

For thus it chanced one morn when all the court,
Green-suited, but with plumes that mock'd the may,
Had been, their wont, a-maying and return'd,
That Modred still in green, all ear and eye,
Climb'd to the high top of the garden wall
To spy some secret scandal if he might,
And saw the Queen who sat betwixt her best
Enid, and lissome Vivien, of her court
The wiliest and the worst; and more than this
He saw not, for Sir Lancelot passing by
Spied where he couch'd, and as the gardener's hand
Picks from the colewort a green caterpillar,
So from the high wall and the flowering grove
Of grasses Lancelot pluck'd him by the heel,
And cast him as a worm upon the way;
But when he knew the Prince tho' marr'd with dust,
He, reverencing king's blood in a bad man,
Made such excuses as he might, and these
Full knightly without scorn; for in those days
No knight of Arthur's noblest dealt in scorn;
But, if a man were halt or hunch'd, in him
By those whom God had made full-limb'd and tall,
Scorn was allow'd as part of his defect,
And he was answer'd softly by the King
And all his Table. So Sir Lancelot holp
To raise the Prince, who rising twice or thrice
Full sharply smote his knees, and smiled, and went:
But, ever after, the small violence done
Rankled in him and ruffled all his heart,
As the sharp wind that ruffles all day long
A little bitter pool about a stone
On the bare coast.

But when Sir Lancelot told
This matter to the Queen, at first she laugh'd
Lightly, to think of Modred's dusty fall,
Then shudder'd, as the village wife who cries
"I shudder, some one steps across my grave;"
Then laugh'd again, but faintlier, for indeed
She half-foresaw that he, the subtle beast,
Would track her guilt until he found, and hers
Would be for evermore a name of scorn.
Henceforward rarely could she front in Hall,
Or elsewhere, Modred's narrow foxy face,
Heart-hiding smile, and gray persistent eye:
Henceforward too, the Powers that tend the soul,
To help it from the death that cannot die,
And save it even in extremes, began
To vex and plague her. Many a time for hours,
Beside the placid breathings of the King,
In the dead night, grim faces came and went
Before her, or a vague spiritual fear—
Like to some doubtful noise of creaking doors,
Heard by the watcher in a haunted house,
That keeps the rust of murder on the walls—
Held her awake: or if she slept, she dream'd
An awful dream; for then she seem'd to stand
On some vast plain before a setting sun,
And from the sun there swiftly made at her
A ghastly something, and its shadow flew
Before it, till it touch'd her, and she turn'd—
When lo! her own, that broadening from her feet,
And blackening, swallow'd all the land, and in it
Far cities burnt, and with a cry she woke.
And all this trouble did not pass but grew;
Till ev'n the clear face of the guileless King,
And trustful courtesies of household life,
Became her bane; and at the last she said,
"O Lancelot, get thee hence to thine own land,
For if thou tarry we shall meet again,
And if we meet again, some evil chance
Will make the smouldering scandal break and blaze
Before the people, and our lord the King."

And Lancelot ever promised, but remain'd,
And still they met and met. Again she said,
"O Lancelot, if thou love me get thee hence."
And then they were agreed upon a night
(When the good King should not be there) to meet
And part for ever. Passion-pale they met
And greeted: hands in hands, and eye to eye,
Low on the border of her couch they sat
Stammering and staring: it was their last hour,
A madness of farewells. And Modred brought
His creatures to the basement of the tower
For testimony; and crying with full voice
"Traitor, come out, ye are trapt at last," aroused
Lancelot, who rushing outward lion-like
Leapt on him, and hurl'd him headlong, and he fell
Stunn'd, and his creatures took and bare him off
And all was still: then she, "the end is come
And I am shamed for ever;" and he said
"Mine be the shame; mine was the sin: but rise,
And fly to my strong castle overseas:
There will I hide thee, till my life shall end,
There hold thee with my life against the world."
She answer'd "Lancelot, wilt thou hold me so?
Nay friend, for we have taken our farewells.
Would God, that thou couldst hide me from myself!
Mine is the shame, for I was wife, and thou
Unwedded; yet rise now, and let us fly,
For I will draw me into sanctuary,
And bide my doom." So Lancelot got her horse,
Set her thereon, and mounted on his own,
And then they rode to the divided way,
There kiss'd, and parted weeping: for he past,
Love-loyal to the least wish of the Queen,
Back to his land; but she to Almesbury
Fled all night long by glimmering waste and weald,
And heard the Spirits of the waste and weald
Moan as she fled, or thought she heard them moan:
And in herself she moaned "too late, too late!"
Till in the cold wind that foreruns the morn,
A blot in heaven, the Raven, flying high,
Croak'd, and she thought "he spies a field of death;
For now the Heathen of the Northern Sea,
Lured by the crimes and frailties of the court,
Begin to slay the folk, and spoil the land."

And when she came to Almesbury she spake
There to the nuns, and said, "mine enemies
Pursue me, but, O peaceful Sisterhood,
Receive, and yield me sanctuary, nor ask
Her name, to whom ye yield it, till her time
To tell you:" and her beauty, grace and power
Wrought as a charm upon them, and they spared
To ask it.

So the stately Queen abode
For many a week, unknown, among the nuns;
Nor with them mix'd, nor told her name, nor sought,
Wrapt in her grief, for housel or for shrift,
But communed only with the little maid,
Who pleased her with a babbling heedlessness
Which often lured her from herself; but now,
This night, a rumor wildly blown about
Came, that Sir Modred had usurped the realm,
And leagued him with the heathen, while the King
Was waging war on Lancelot: then she thought,
"With what a hate the people and the King
Must hate me," and bow'd down upon her hands
Silent, until the little maid, who brook'd
No silence, brake it, uttering "late! so late!
What hour, I wonder, now?" and when she drew
No answer, by and by began to hum

An air the nuns had taught her; "late, so late!"
Which when she heard, the Queen look'd up, and said,
"O maiden, if indeed ye list to sing,
Sing, and unbind my heart that I may weep."
Whereat full willingly sang the little maid.

"Late, late, so late! and dark the night and chill!
Late, late, so late! but we can enter still.
Too late, too late! ye cannot enter now.

"No light had we: for that we do repent;
And learning this, the bridegroom will relent.
Too late, too late! ye cannot enter now.

"No light: so late: and dark and chill the night!
O let us in, that we may find the light!
Too late, too late: ye cannot enter now.

"Have we not heard the bridegroom is so sweet?
O let us in, tho' late, to kiss his feet!
No, no, too late! ye cannot enter now."

So sang the novice, while full passionately,
Her head upon her hands, remembering
Her thought when first she came, wept the sad Queen.
Then said the little novice prattling to her.

"O pray you, noble lady, weep no more:
But let my words, the words of one so small,
Who knowing nothing knows but to obey,
And if I do not there is penance given—
Comfort your sorrows; for they do not flow
From evil done; right sure am I of that,
Who see your tender grace and stateliness.
But weigh your sorrows with our lord the King's,
And weighing find them less; for gone is he
To wage grim war against Sir Lancelot there,
Round that strong castle where he holds the Queen;
And Modred whom he left in charge of all,
The traitor—Ah sweet lady, the King's grief
For his own self, and his own Queen, and realm,
Must needs be thrice as great as any of ours.
For me, I thank the saints, I am not great.
For if there ever come a grief to me
I cry my cry in silence, and have done:
None knows it and my tears have brought me good:
But even were the griefs of little ones
As great as those of great ones, yet this grief
Is added to the griefs the great must bear,
That howsoever much they may desire
Silence, they cannot weep behind a cloud:
As even here they talk at Almesbury
About the good King and his wicked Queen,
And were I such a King with such a Queen,
Well might I wish to veil her wickedness,
But were I such a King, it could not be."

Then to her own sad heart mutter'd the Queen.
"Will the child kill me with her innocent talk?"
But openly she answer'd "must not I,
If this false traitor have displaced his lord,
Grieve with the common grief of all the realm?"

"Yea," said the maid, "this is all woman's grief,
That *she* is woman, whose disloyal life
Hath wrought confusion in the Table Round
Which good King Arthur founded, years ago,
With signs and miracles and wonders, there
At Camelot ere the coming of the Queen."

Then thought the Queen within herself again;
"Will the child kill me with her foolish prate?"
But openly she spake and said to her;
"O little maid, shut in by nunnery walls,

What canst thou know of Kings and Tables Round,
Or what of signs and wonders, but the signs
And simple miracles of thy nunnery?"

To whom the little novice garrulously,
"Yea, but I know: the land was full of signs
And wonders ere the coming of the Queen,
So said my father, and himself was knight
Of the great Table—at the founding of it;
And rode thereto from Lyonnesse, and he said
That as he rode, an hour or maybe twain
After the sunset, down the coast, he heard
Strange music, and he paused and turning—there,
All down the lonely coast of Lyonnesse,
Each with a beacon-star upon his head,
And with a wild sea-light about his feet,
He saw them—headland after headland flame
Far on into the rich heart of the west;
And in the light the white mermaiden swam,
And strong man-breasted things stood from the sea,
And sent a deep sea-voice thro' all the land,
To which the little elves of chasm and cleft
Made answer, sounding like a distant horn.
So said my father—yea, and furthermore,
Next morning, while he past the dim-lit woods,
Himself beheld three spirits mad with joy
Come dashing down on a tall wayside flower,
That shook beneath them, as the thistle shakes
When three gray linnets wrangle for the seed:
And still at evenings on before his horse
The flickering fairy-circle wheel'd and broke
Flying, and link'd again, and wheel'd and broke
Flying, for all the land was full of life.
And when at last he came to Camelot,
A wreath of airy dancers hand-in-hand
Swung round the lighted lantern of the hall;
And in the hall itself was such a feast
As never man had dream'd; for every knight
Had whatsoever meat he long'd for served
By hands unseen; and even as he said
Down in the cellars merry bloated things
Shoulder'd the spigot, straddling on the butts
While the wine ran: so glad were spirits and men
Before the coming of the sinful Queen."

Then spake the Queen and somewhat bitterly.
"Were they so glad? ill prophets were they all,
Spirits and men: could none of them foresee,
Not even thy wise father with his signs
And wonders, what has fall'n upon the realm?"

To whom the novice garrulously again.
"Yea, one, a bard; of whom my father said,
Full many a noble war-song had he sung,
E'en in the presence of an enemy's fleet,
Between the steep cliff and the coming wave;
And many a mystic lay of life and death
Had chanted on the smoky mountain-tops,
When round him bent the spirits of the hills
With all their dewy hair blown back like flame.
So said my father—and that night the bard
Sang Arthur's glorious wars, and sang the King
As wellnigh more than man, and rail'd at those
Who call'd him the false son of Gorlois:
For there was no man knew from whence he came;
But after tempest, when the long wave broke
All down the thundering shores of Bude and Bos,
There came a day as still as heaven, and then
They found a naked child upon the sands
Of dark Tintagil by the Cornish sea;
And that was Arthur; and they foster'd him
Till he by miracle was approven king:
And that his grave should be a mystery
From all men, like his birth; and could he find
A woman in her womanhood as great
As he was in his manhood, then, he sang,
The twain together well might change the world.
But even in the middle of his song
He falter'd, and his hand fell from the harp,
And pale he turn'd, and reel'd, and would have fall'n,
But that they stay'd him up; nor would he tell
His vision; but what doubt that he foresaw
This evil work of Lancelot and the Queen?"

Then thought the Queen "lo! they have set her on,
Our simple-seeming Abbess and her nuns,
To play upon me," and bow'd her head nor spake.
Whereat the novice crying, with clasp'd hands,
Shame on her own garrulity garrulously,
Said the good nuns would check her gadding tongue
Full often, "and, sweet lady, if I seem
To vex an ear too sad to listen to me,
Unmannerly, with prattling and the tales
Which my good father told, check me too:
Nor let me shame my father's memory, one
Of noblest manners, tho' himself would say
Sir Lancelot had the noblest; and he died,
Kill'd in a tilt, come next, five summers back,
And left me; but of others who remain,
And of the two first-famed for courtesy—
And pray you check me if I ask amiss—
But pray you, which had noblest, while you moved
Among them, Lancelot or our lord the King?"

Then the pale Queen look'd up and answer'd her.
"Sir Lancelot, as became a noble knight,
Was gracious to all ladies, and the same
In open battle or the tilting-field
Forbore his own advantage, and the King
In open battle or the tilting-field
Forbore his own advantage, and these two
Were the most nobly-mannered men of all;
For manners are not idle, but the fruit
Of loyal nature, and of noble mind."

"Yea," said the maid, "be manners such fair fruit?
Then Lancelot's needs must be a thousand-fold
Less noble, being, as all rumor runs,
The most disloyal friend in all the world."

To which a mournful answer made the Queen.
"O closed about by narrowing nunnery-walls,
What knowest thou of the world, and all its lights
And shadows, all the wealth and all the woe?
If ever Lancelot, that most noble knight,
Were for one hour less noble than himself,
Pray for him that he scape the doom of fire,
And weep for her, who drew him to his doom."

"Yea," said the little novice, "I pray for both;
But I should all as soon believe that his,
Sir Lancelot's, were as noble as the King's,
As I could think, sweet lady, yours would be
Such as they are, were you the sinful Queen."

So she, like many another babbler, hurt
Whom she would soothe, and harm'd where she would heal;
For here a sudden flush of wrathful heat
Fired all the pale face of the Queen, who cried,
"Such as thou art be never maiden more
For ever! thou their tool, set on to plague
And play upon, and harry me, petty spy
And traitress." When that storm of anger brake

From Guinevere, aghast the maiden rose,
White as her veil, and stood before the Queen
As tremulously as foam upon the beach
Stands in a wind, ready to break and fly,
And when the Queen had added "get thee hence"
Fled frighted. Then that other left alone
Sigh'd, and began to gather heart again,
Saying in herself "the simple, fearful child
Meant nothing, but my own too-fearful guilt
Simpler than any child, betrays itself.
But help me, heaven, for surely I repent.
For what is true repentance but in thought—
Not ev'n in inmost thought to think again
The sins that make the past so pleasant to us:
And I have sworn never to see him more,
To see him more."

And ev'n in saying this,
Her memory from old habits of the mind
Went slipping back upon the golden days
In which she saw him first, when Lancelot came,
Reputed the best knight and goodliest man,
Ambassador, to lead her to his lord
Arthur, and led her forth, and far ahead
Of his and her retinue moving, they,
Rapt in sweet talk or lively, all on love
And sport and tilts and pleasure, (for the time
Was maytime, and as yet no sin was dream'd,)
Rode under groves that look'd a paradise
Of blossom, over sheets of hyacinth
That seem'd the heavens upbreaking thro' the earth,
And on from hill to hill, and every day
Beheld at noon in some delicious dale
The silk pavilions of King Arthur raised
For brief repast or afternoon repose
By couriers gone before; and on again,
Till yet once more ere set of sun they saw
The Dragon of the great Pendragonship,
That crown'd the state pavilion of the King,
Blaze by the rushing brook or silent well.

But when the Queen immersed in such a trance,
And moving through the past unconsciously,
Came to that point where first she saw the King
Ride toward her from the city, sigh'd to find
Her journey done, glanced at him, thought him cold,
High, self-contain'd, and passionless, not like him,
"Not like my Lancelot"—while she brooded thus
And grew half-guilty in her thoughts again,
There rode an armed warrior to the doors.
A murmuring whisper thro' the nunnery ran,
Then on a sudden a cry, "the King." She sat
Stiff-stricken, listening; but when armed feet
Thro' the long gallery from the outer doors
Rang coming, prone from off her seat she fell,
And grovell'd with her face against the floor:
There with her milkwhite arms and shadowy hair
She made her face a darkness from the King:
And in the darkness heard his armed feet
Pause by her; then came silence, then a voice,
Monotonous and hollow like a Ghost's
Denouncing judgment, but tho' changed the King's.

"Liest thou here so low, the child of one
I honor'd, happy, dead before thy shame?
Well is it that no child is born of thee.
The children born of thee are sword and fire,
Red ruin, and the breaking up of laws,
The craft of kindred and the Godless hosts
Of heathen swarming o'er the Northern Sea.
Whom I, while yet Sir Lancelot, my right arm,
The mightiest of my knights, abode with me,
Have everywhere about this land of Christ
In twelve great battles ruining overthrown.
And knowest thou now from whence I come—from him,
From waging bitter war with him: and he,
That did not shun to smite me in worse way,
Had yet that grace of courtesy in him left,
He spared to lift his hand against the King
Who made him knight: but many a knight was slain;
And many more, and all his kith and kin
Clave to him, and abode in his own land.
And many more when Modred raised revolt,
Forgetful of their troth and fealty, clave
To Modred, and a remnant stays with me.
And of this remnant will I leave a part,
True men who love me still, for whom I live,
To guard thee in the wild hour coming on,
Lest but a hair of this low head be harm'd.
Fear not: thou shalt be guarded till my death.
Howbeit I know, if ancient prophecies
Have err'd not, that I march to meet my doom.
Thou hast not made my life so sweet to me,
That I the King should greatly care to live;
For thou hast spoilt the purpose of my life.
Bear with me for the last time while I show,
Ev'n for thy sake, the sin which thou hast sinn'd.
For when the Roman left us, and their law
Relax'd its hold upon us, and the ways
Were fill'd with rapine, here and there a deed
Of prowess done redress'd a random wrong.
But I was first of all the kings who drew
The knighthood-errant of this realm and all
The realms together under me, their Head,
In that fair order of my Table Round,
A glorious company, the flower of men,
To serve as model for the mighty world,
And be the fair beginning of a time.
I made them lay their hands in mine and swear
To reverence the King, as if he were
Their conscience, and their conscience as their King,
To break the heathen and uphold the Christ,
To ride abroad redressing human wrongs,
To speak no slander, no, nor listen to it,
To lead sweet lives in purest chastity,
To love one maiden only, cleave to her,
And worship her by years of noble deeds,
Until they won her; for indeed I knew
Of no more subtle master under heaven
Than is the maiden passion for a maid,
Not only to keep down the base in man,
But teach high thought, and amiable words
And courtliness, and the desire of fame,
And love of truth, and all that makes a man.
And all this throve until I wedded thee!
Believing, 'lo mine helpmate, one to feel
My purpose and rejoicing in my joy.'
Then came thy shameful sin with Lancelot;
Then came the sin of Tristram and Isolt;
Then others, following these my mightiest knights,
And drawing foul ensample from fair names,
Sinn'd also, till the loathsome opposite
Of all my heart had destined did obtain,
And all thro' thee! so that this life of mine
I guard as God's high gift from scathe and wrong,
Not greatly care to lose; but rather think
How sad it were for Arthur, should he live
To sit once more within his lonely hall,
And miss the wonted number of my knights,
And miss to hear high talk of noble deeds

As in the golden days before thy sin.
For which of us, who might be left, could speak
Of the pure heart, nor seem to glance at thee?
And in thy bowers of Camelot or of Usk
Thy shadow still would glide from room to room,
And I should evermore be vext with thee
In hanging robe or vacant ornament
Or ghostly footfall echoing on the stair.
For think not, tho' thou wouldst not love thy lord,
Thy lord has wholly lost his love for thee.
I am not made of so slight elements.
Yet must I leave thee, woman, to thy shame.
I hold that man the worst of public foes
Who either for his own or children's sake,
To save his blood from scandal, lets the wife
Whom he knows false, abide and rule the house:
For being thro' his cowardice allow'd
Her station, taken everywhere for pure,
She like a new disease, unknown to men,
Creeps, no precaution used, among the crowd,
Makes wicked lightnings of her eyes, and saps
The fealty of our friends, and stirs the pulse
With devil's leaps, and poisons half the young.
Worst of the worst were that man he that reigns!
Better the King's waste hearth and aching heart
Than thou reseated in thy place of light,
The mockery of my people, and their bane."

He paused, and in the pause she crept an inch
Nearer, and laid her hands about his feet.
Far off a solitary trumpet blew,
Then waiting by the doors the war-horse neigh'd
As at a friend's voice, and he spake again.

"Yet think not that I come to urge thy crimes,
I did not come to curse thee, Guinevere,
I, whose vast pity almost makes me die
To see thee, laying there thy golden head,
My pride in happier summers, at my feet.
The wrath which forced my thoughts on that fierce law,
The doom of treason and the flaming death,
(When first I learnt thee hidden here) is past.
The pang—which while I weigh'd thy heart with one
Too wholly true to dream untruth in thee,
Made my tears burn—is also past, in part.
And all is past, the sin is sinn'd, and I,
Lo! I forgive thee, as Eternal God
Forgives: do thou for thine own soul the rest.
But how to take last leave of all I loved?
O golden hair, with which I used to play
Not knowing! O imperial-moulded form,
And beauty such as never woman wore,
Until it came a kingdom's curse with thee—
I cannot touch thy lips, they are not mine,
But Lancelot's: nay, they never were the King's.
I cannot take thy hand; that too is flesh,
And in the flesh thou hast sinn'd; and mine own flesh,
Here looking down on thine polluted cries
'I loathe thee:' yet not less, O Guinevere,
For I was ever virgin save for thee,
My love thro' flesh hath wrought into my life
So far, that my doom is, I love thee still.
Let no man dream but that I love thee still.
Perchance, and so thou purify thy soul,
And so thou lean on our fair father Christ,
Hereafter in that world where all are pure
We two may meet before high God, and thou
Wilt spring to me, and claim me thine, and know
I am thine husband—not a smaller soul,
Nor Lancelot, nor another. Leave me that,
I charge thee, my last hope. Now must I hence.
Thro' the thick night I hear the trumpet blow:
They summon me their King to lead mine hosts
Far down to that great battle in the west,
Where I must strike against the man they call
My sister's son—no kin of mine, who leagues
With lords of the White Horse, heathen, and knights—
Traitors—and strike him dead, and meet myself
Death, or I know not what mysterious doom.
And thou remaining here wilt learn the event;
But hither shall I never come again,
Never lie by thy side, see thee no more,
Farewell!"

And while she grovell'd at his feet,
She felt the King's breath wander o'er her neck,
And in the darkness o'er her fallen head,
Perceived the waving of his hands that blest.

Then, listening till those armed steps were gone,
Rose the pale Queen, and in her anguish found
The casement: "peradventure" so she thought,
"If I might see his face, and not be seen."
And lo, he sat on horseback at the door!
And near him the sad nuns with each a light
Stood, and he gave them charge about the Queen,
To guard and foster her for evermore.
And while he spake to these his helm was lower'd,
To which for crest the golden dragon clung
Of Britain; so she did not see the face,
Which then was as an angel's, but she saw,
Wet with the mists and smitten by the lights,
The Dragon of the great Pendragonship
Blaze, making all the night a steam of fire.
And even then he turn'd; and more and more
The moony vapor rolling round the King,
Who seem'd the phantom of a Giant in it,
Enwound him fold by fold, and made him gray
And grayer, till himself became as mist
Before her, moving ghost-like to his doom.

Then she stretched out her arms and cried aloud
"O Arthur!" there her voice brake suddenly,
Then—as a stream that spouting from a cliff
Fails in mid air, but gathering at the base
Re-makes itself, and flashes down the vale—
Went on in passionate utterance.

"Gone—my lord!
Gone thro' my sin to slay and to be slain!
And he forgave me, and I could not speak.
Farewell? I should have answer'd his farewell.
His mercy choked me. Gone, my lord the King,
My own true lord! how dare I call him mine?
The shadow of another cleaves to me,
And makes me one pollution: he, the King,
Call'd me polluted: shall I kill myself?
What help in that? I cannot kill my sin,
If soul be soul; nor can I kill my shame;
No, nor by living can I live it down.
The days will grow to weeks, the weeks to months,
The months will add themselves and make the years,
The years will roll into the centuries,
And mine will ever be a name of scorn.
I must not dwell on that defeat of fame.
Let the world be; that is but of the world.
What else? what hope? I think there was a hope,

Except he mock'd me when he spake of hope;
His hope he call'd it; but he never mocks,
For mockery is the fume of little hearts.
And blessed be the King, who hath forgiven
My wickedness to him, and left me hope
That in mine own heart I can live down sin
And be his mate hereafter in the heavens
Before high God. Ah great and gentle lord,
Who wast, as is the conscience of a saint
Among his warring senses, to thy knights—
To whom my false voluptuous pride, that took
Full easily all impressions from below,
Would not look up, or half-despised the height
To which I would not or I could not climb—
I thought I could not breathe in that fine air
That pure severity of perfect light—
I wanted warmth and color which I found
In Lancelot—now I see thee what thou art,
Thou art the highest and most human too,
Not Lancelot, nor another. Is there none
Will tell the King I love him tho' so late?
Now—ere he goes to the great Battle? none:
Myself must tell him in that purer life,
But now it were too daring. Ah my God,
What might I not have made of thy fair world,
Had I but loved thy highest creature here?
It was my duty to have loved the highest;
It surely was my profit had I known;
It would have been my pleasure had I seen.
We needs must love the highest when we see it,
Not Lancelot, nor another."

Here her hand
Grasp'd, made her veil her eyes: she look'd and saw
The novice, weeping, suppliant, and said to her
"Yea, little maid, for am *I* not forgiven?"
Then glancing up beheld the holy nuns
All round her, weeping; and her heart was loosed
Within her, and she wept with these and said.

"Ye know me then, that wicked one, who broke
The vast design and purpose of the King.
O shut me round with narrowing nunnery-walls,
Meek maidens, from the voices crying 'shame.'
I must not scorn myself: he loves me still.
Let no one dream but that he loves me still.
So let me, if you do not shudder at me
Nor shun to call me sister, dwell with you;
Wear black and white, and be a nun like you;
Fast with your fasts, not feasting with your feasts;
Grieve with your griefs, not grieving at your joys,
But not rejoicing; mingle with your rites;
Pray and be pray'd for; lie before your shrines;
Do each low office of your holy house;
Walk your dim cloister, and distribute dole
To poor sick people, richer in his eyes
Who ransom'd us, and haler too than I;
And treat their loathsome hurts and heal mine own;
And so wear out in almsdeed and in prayer
The sombre close of that voluptuous day,
Which wrought the ruin of my lord the King."

She said: they took her to themselves; and she
Still hoping, fearing "is it yet too late?"
Dwelt with them, till in time their Abbess died.
Then she, for her good deeds and her pure life,
And for the power of ministration in her,
And likewise for the high rank she had borne,
Was chosen Abbess, there, an Abbess, lived
For three brief years, and there, an Abbess, past
To where beyond these voices there is peace.

CONVERSATIONS ON CREATION.

CHAPTER V.

When we met next evening, John read as follows:

"The Miltonic hypothesis contains assertions of a very definite character, relating to the succession of living forms. It is stated that plants, for example, made their appearance upon the third day, and not before. And you will understand that what the poet means by plants are such plants as now live, the ancestors, in the ordinary way of propagation of like by like, of the trees and shrubs which flourish in the present world. It must needs be so; for if they were different, either the existing plants have been the result of a separate origination since that described by Milton, of which we have no record, nor any ground for supposition that such an occurrence had taken place; or else they have arisen by a process of Evolution from the original stocks.

"In the second place, it is clear that there was no animal life before the fifth day, and that on the fifth day aquatic animals and birds appeared. And it is further clear that terrestrial living things, other than birds, made their appearance upon the sixth day, and not before. Hence it follows that if in the large mass of circumstantial evidence as to what really has happened in the past history of the globe, we find indications of the existence of terrestrial animals, other than birds, at a certain period, it is perfectly certain that all that has taken place since that time must be referred to the sixth day.

"In the great Carboniferous formation, whence America derives so vast a proportion of her actual and potential wealth in the beds of coal which have been formed from the vegetation of that period, we find abundant evidence of the existence of terrestrial animals. They have been described, not only by Europeans, but by your own naturalists. There are to be found numerous insects allied to our cockroaches. There are to be found spiders and scorpions of large size, the latter so similar to existing scorpions that it requires the practiced eye of the naturalist to distinguish them. Inasmuch as these animals can be proved to have been alive in the Carboniferous epoch, it is perfectly clear that if the Miltonic account is to be accepted, the huge mass of rocks extending from the middle of the Palæozoic formation to the uppermost members of the series, must belong to the day which is termed by Milton the sixth. But further, it is expressly stated that aquatic animals took their origin upon the fifth day, and not before; hence all formations in which remains of aquatic animals can be proved to exist, and which, therefore, testify that such animals lived at the time when these formations were in course of deposition, must have been deposited during or since the period which Milton speaks of as the fifth day. But there is absolutely no fossiliferous formation in which the remains of aquatic animals are absent. The oldest fossils in the Silurian rocks are exuviæ of marine animals, and if the view which is entertained by Principal Dawson and Dr. Carpenter respecting the nature of the *Eozoön* be well founded, aquatic animals existed at a period as far antecedent to the deposition of the coal, as the coal is from us; inasmuch as the *Eozoön* is met with in those Laurentian strata which lie at the bottom of the series of stratified rocks. Hence it follows, plainly enough, that the whole series of stratified rocks, if they are to be brought into harmony with Milton, must be referred to the fifth and sixth days, and that we cannot hope to find the slightest trace of the products of earlier days in the geological record. When we consider these simple facts, we see how absolutely futile are the attempts that have been made to draw a parallel between the story told by so much of the crust of the earth as is known to us, and the story which Milton tells. The whole series of fossiliferous stratified rocks must be referred to the last two days; and neither the carboniferous, nor any other formation can afford evidence of the work of the third day.

"Not only is there this objection to any attempt to establish a harmony between the Miltonic account and the facts recorded in the fossiliferous rocks, but there is a further difficulty. According to the Miltonic account the order in which animals should have made their appearance in the stratified rocks would be this. Fishes, including the great whales, and birds; after them, all varieties of terrestrial animals except birds. Nothing could be further from the facts as we find them; we know of not the slightest evidence of the existence of birds before the Jurassic, or perhaps the Triassic, formation, while terrestrial animals as we have just seen, occur in the carboniferous rocks. If there were any harmony between the Miltonic account and the circumstan-

tial evidence, we ought to have abundant evidence of the existence of birds in the Carboniferous, the Devonian, and the Silurian rocks. I need hardly say that this is not the case, and that not a trace of birds makes its appearance until the far later period which I have mentioned.

"And again, if it be true that all varieties of fishes, and the great whales, and the like, made their appearance on the fifth day, we ought to find the remains of these animals in the older rocks—in those which were deposited before the carboniferous epoch: Fishes we do find in considerable number and variety; but the great whales are absent, and the fishes are not such as now live. Not one solitary species of fish now in existence is to be found in the Devonian or Silurian formations. Hence we are introduced afresh to the dilemma which I have already placed before you; either the animals which came into existence on the fifth day were not such as those which are found at present, are not the direct and immediate ancestors of those which now exist; in which case either fresh creations, of which nothing is said, or a process of Evolution, must have occurred; or else the whole story must be given up as not only devoid of any circumstantial evidence, but contrary to such evidence as now exists."

"You have read every word exactly as I expected, and I suppose you feel that this argument is really the substance of Professor Huxley's attack."

"Yes, it certainly appears to me to be very strong," replied John.

"It comes out still more clearly in the American edition which I have here, taken down *verbatim* by American reporters from his own lips. Here the opening paragraph reads as follows:—

'Whatever the flexibility of interpretation of Milton's views, it is quite impossible to deny that the kernel of the whole matter is a statement as to a certain order of succession of living forms.'

And for the simple word 'Evolution' further on as the only possible alternative, we read as spoken, 'that dreaded process of Evolution.' Well, we must examine this argument fairly. First of all, you will notice how we are to be tied down here 'to the plants which now live, the trees and shrubs which we now have,' or else to 'that dreaded process of Evolution' from an original stock. I hardly know what was the conclusion of your mind, but I tried to make it clear the other night that I do *not* dread the process of Evolution, provided it is not so defined as to shut out the idea of an intelligent Creator whose energy is necessary at every step of the process, and upon whom all depends."

"I quite go with you so far," replied John.

"I do not know that I should object to Evolution in that sense either," said Mr. Moreton.

"Very well. In that view of the matter it will be well to read one more sentence. It is a little further on, and I must again take the liberty of quoting from the verbatim report as giving more truly the real spirit of the argument."

" 'But none of these [changes] gives us any right to believe, no inspection of these changes gives us the slightest right to believe that there has been any discontinuity in natural processes. There is no trace of cataclysm, of great sweeping deluge, of sudden destruction of organic life. The appearances which were formerly interpreted in that way have all been shown to be delusive as our knowledge has increased, and as the blanks between the different formations have been filled up. It can now be shown that there is no absolute break between formation and formation, that there has been no sudden disappearance of all the forms of life at one time, and replacement by another, but that everything has gone on slowly and gradually, that one form has died out, and another has taken its place, and that thus by slow degrees one fauna has been replaced by another. So that within the whole of the immense period indicated by these stratified rocks, there is assuredly—leaving Evolution out of the question altogether—not the slightest trace of any break in the uniformity of nature's operations, not a shadow of indication that events have followed in other than their natural and orderly sequence.'

"Now most of the people who heard this may have believed it. But I wish to ask, first, as your own study of geology partly led you into these difficulties, whether *you* consider this a true and fair statement of the geologic facts? Its design is of course to show that there are no great steps which necessitate Divine power. But are such affirmations as 'no trace of cataclysm, of sudden destruction of organic life,' or, again, 'no absolute break between formation and formation;' or again, 'not the slightest trace of any break in the uniformity of Nature's operations'—are these things *true?* When it is said that 'everything has gone on slowly and gradually, that one form has died out and another has taken its place, and that thus by slow degrees one fauna has been replaced by another,' is this fairly correct in any scientific sense? Does it fairly represent the way in which the reptilian and mammalian fauna came upon the scene? Is it true of the boundaries between say the Azoic and Palæozoic formations, or of the period called the Permian, or of the vast changes at other periods? Apart from my views, or from the Bible, does your own geologic reading endorse it?"

"No, it does not. It is strange I never seemed to notice this. It is *not* true; nay, it is most grossly contrary to fact. But why do you refer to it?"

"Partly to justify our idea of Evolution against that automatic one put before us here; but chiefly to show you again how foolish it is to rashly take *on trust* all that assailants of Genesis affirm, without examining every statement to see if it is warranted by the facts. We are agreed, then, that this objection, at least, has little force. If we find in the days a true order of succession, in the main broad outlines, we find all that we expect; and we do not object in any way to subsequent and present forms having arisen through the *not* dreaded 'process of Evolution.' "

"Certainly."

"I suppose, in the next place, you will share the opinion I have formed, that this long argument is chiefly directed against the interpretation of Hugh Miller. You know how he traced the third day, or, at least, the end of it, in the great Carboniferous period; and the fifth and sixth in the reptiles, and fishes, and birds, and mammals of the Secondary and Tertiary formations. Accordingly Professor Huxley is at pains to show that marine life existed long before the Carboniferous age; and even that what he calls 'terrestrial animals' also existed in that period."

"Yes. I always took that as an attack upon Hugh Miller's argument," said John; and Mr. Lightfoot also assented.

"I think there can be no reasonable doubt of it. Now I think that even Miller's interpretation is capable of defence. The conclusion we reached the other day was, that we should not expect in such a revelation as is here supposed, any more than the broad outlines, and most probably these as they would appear *in vision* to a spectator. Whether the narrative be first credited to Adam or Moses, that has been the view generally held. Now, it might very fairly be said that the pre-carboniferous marine life was under the water, or invisible; that if, therefore, Creation were shown in vision, there would be nothing to show or to see; and that the narrative would resume its course at the next conspicuous *visible* phenomena. It might further be urged for such a view, that there were possible reasons why the Divine Spirit should choose it to be thus, seeing the narrative was to be—as we have supposed—handed down orally, from father to son. This was to be done for centuries, among a people who never saw the sea, and knew nothing of even visible sea life, much less of invisible life under its surface; and it might be well urged that if these low types of life had been described, it was probable this portion of the story would have been distorted and misunderstood. We shall see by and bye that it is precisely the marine portion which actually *has* puzzled translators most, as it is. There would be much force in such arguments, and if they be accepted you will see that the correspondence is, even so, satisfactory enough."

"I did not think so much could be said for Hugh Miller's

view," said Lightfoot. "I confess it does not satisfy me thoroughly, but it is, at all events, better than the statement which so disgusted John, and myself too, just now. But your suggestion calls up another in my mind. It would not greatly distress me to suppose that the marine life *had* been mentioned in the original; but being not understood, for the reasons you gave, had gradually disappeared. Did that ever occur to you?"

"I don't like that," said Mr. Moreton. "You do not know where such a process might stop. Is it absolutely indisputable that marine life did come before the coal fields?"

"Absolutely, and for long ages before. But as for the terrestrial animals' life spoken of by Mr. Huxley, how would it have sounded and seemed to you if the writer had put in, in any place, a parenthesis to say that the creatures described were not *quite* the first forms of land life, as God had previously created some spiders, and scorpions, and cockroaches? What would you have thought of *that;* and would this kind of carping 'criticism' be considered fair attack in any one but—a philosopher?"

"No," said John, "it is not fair; and as to these cockroaches, something of the same sort struck me, though I see it more clearly now. But you did not reply to Mr. Lightfoot. Do you take his view, that something may have dropped out; for I gather that you do not yourself adopt Hugh Miller's interpretation."

"No, I do not. The other idea has occurred to me; but I do not think that is the truth either. You have observed Professor Huxley's virtual admission that, provided the whole series of geologic *strata* refer to the fifth and sixth days, there is no contradiction—at all events, no broad contradiction. Some small exceptions he takes we shall take up in the other days."

"Yes, I see that. But then you have to assume the creation of plants before the fossil period. Is that at all likely? And again, is there any evidence tending that way?"

"It seems to me, to take your questions separately, that it is most likely; and there is the very strongest evidence of it. To take the evidence first, you know how the very first and lowest form of life at present discovered is the Eozoön, found in the Laurentian formation, at the very bottom of the Palæozoic rocks. Now in the very same formation are found immense masses of the mineral called *graphite;* and you, at least, John, must know what that means."

"Yes, certainly."

"Pardon me, what *does* it mean?" said Mr. Lowther. "I like to be sure of my ground as I go on, and I have not the knowledge of a Workstone manufacturer."

"Graphite is simply carbon, in combination with a small portion of iron or other elements. In later formations it is known to have been formed from vegetable matter, and there is not the slightest reason to suppose it is otherwise here. Principal Dawson actually found in the same Laurentian deposits which contain the *Eozoön*, carbonaceous fibres and granules, which point to organic origin. Since that M. Sismonda has found in the earliest gneiss of the Alps, traces of a plant very analagous to one in the coal formation, and thus proves some vegetation, at least, coeval with the *Eozoön*. And Professor Nordenskjöld reports to the Swedish Academy an immense deposit of *bituminous* gneiss embedded in common gneiss and mica-slate, at Nullaberg in Sweden. All these things point to the existence of pre-Laurentian vegetable matter."

"But why is there not more of it?"

"That brings us to the extreme *likelihood* of the view, that the plants of this verse existed before the fossiliferous rocks. We must take the story as we find it; and it tells us that these plants followed the *first* land of our globe, before even the sun was fully formed. It was a very early period, and the occasional action of the earth's heat must still have been intense. It was simply to be expected that all this growth should be broken up and swept away by after changes; and yet again, your chemical knowledge teaches you that as carbon readily burns, most of it when exposed to heat, would be thus disposed of, except such as entered into combination with other substances. I need not tell you that graphite is one of the most refractory substances known, and used for crucibles on that very account; and you also know perfectly well that some forms of it are occasionally found in connection with the later coal-beds of the Carboniferous period. You may not have remembered, however, that in nearly all these later cases, both coal and graphite are in contact with old volcanic rocks; showing again, that graphite instead of coal is the result of intense heat, combined with pressure and exclusion from the atmosphere. This is just the state of things that we must suppose here: we ought therefore to expect simply a moderate quantity of graphite or analogous substances, and such is precisely what we find. However, I have already said that if there be any difficulty, it is here."

"Really I must say there seems none; and you cannot tell how my mind is relieved," said John. "But have you any further reasons for preferring this view to Hugh Miller's?"

"Several, but it is no use going into every detail. I may, however, say that it seems to me better to agree with other physical aspects of the case, and especially with that strange statement in the second chapter which we spoke about the other night. As I said then, it is a little difficult to fit it in with exact certainty into its place here; but it seems meant to be said, that in the time of these plants there had been no rain, but a mist went up from the earth and watered them."

"That is the fair conclusion, I think," said Mr. Lowther. "I have always read it that way."

"If it be so, then we have another strange coincidence. We know now that the sun, as a *centre* of light and heat, is the cause of nearly all meteorological phenomena, certainly of rain. Before he existed as a centre, it is difficult to see how there could have been any rain. It is impossible the ancients could have known this as we know it: yet here is an account which professes to describe things before the sun, and it is also said there was no rain. It was just what must have been, if the story is true; it is exactly consistent; but how came it to be known?"

"It is extraordinary," said Mr. Lightfoot. "I see now what you meant the other night. How is it no one has noticed these things?"

"I think they must have been noticed; but theologians have almost confined their scientific knowledge to a few books upon geology. I naturally turn to other points, and I hope at least to have convinced you that the subject is wider than geology alone can adequately deal with."

"I give up, at all events," said Mr. Moreton. "I will never speak against science again, or scientific men either, if I can help it; though it is hard to read such statements as those we have read to-night. I begin to see there may be a truth and meaning in this chapter such as I never dreamt of. But go on; or have you done?"

"Nearly. I wanted to remark, however, that the absence of rain would probably involve the absence of rivers; and if so, there would be no *sedimentary* rocks, and there *could* be no fossil remains, except those formed by heat, such as we have seen do exist. All our fossils, or nearly all, are formed by the action of water wearing down older soils, and depositing sediment over the remains we find. The absence of vegetable remains in any profusion in the earliest strata, is therefore simply a proof—not that there was no *creation* of plants before those strata—but that there was no great *destruction by water* of a plant world, such as occurred later on. We have seen that if our story be true, such action of water was impossible. Such destruction as occurred must have been by heat, which would burn up a large portion into

carbonic acid, and convert the rest into this graphite. The vapor or mist, going up from the earth, testifies in another way to the great internal heat, at a small distance under the surface of the ground. All the statements coincide and fit in the most marvellous way with one another, and with the early period in which all is placed."

"I quite see that," said John. "More, I must say frankly that the whole passage stands better authenticated than I ever thought it, or supposed it could be."

"This view of yours is very interesting," said Mr. Moreton, "and I confess it seems to be very well founded."

"It is not my view. Dana and Dawson, in America, are most identified with it, and even Professor Huxley would admit that Dana stands very high as a geological authority, in spite of his belief in Christianity. He supports it by many arguments I cannot repeat now, but I have never seen the physical argument I have built upon the early stage in the story, which seems to me the strongest of all."

"And so it is to me," said John. "In the very story, these plants are put the very first thing, before any animal life. Fairly, therefore, and on the face of it, we *ought* to look for them before that life, and very early indeed, since the sun comes after. The only fair question is, if there be fair evidence of a vegetation having then existed, and of this it seems there can be little doubt. The sole objection that occurs to me is, that in the carboniferous formations the plants are mainly ferns and mosses, and this verse plainly describes the main families, including the higher ones which bear seed and fruit."

"We have no evidence that it was not so," replied Marsden, "and commonly fall back upon analogy. First of all, the lower forms are mentioned first, proceeding to the higher—very singular by the way. And secondly, in both the reptilian and mammalian creations, higher types appeared at an early stage than existed later. So far as analogy goes, therefore, we might at least fairly expect it had been the same with the plants. Thirdly, we are quite willing to allow much for gradual Evolution. We have agreed that we do *not* 'dread' that process. At all events, the main fact stands good, that in the earlier graphites we have the *only geologic evidence we could have*, that vegetable creation preceded the earliest animal creation we know; and also we know that, however animals and plants approach each other in their lowest forms, the broad distinction between them is, that animals require pre-existing organic matter to feed on, while plants do not. My chief other reason for taking this view in preference to Hugh Miller's, is that the lower forms of life which geologists tell us came first, do not appear to me passed over in the original, but rather to be expressly indicated. If so, this makes it clear that Genesis intends to *say*, at all events, that the third day and its plants came before them. And there seem only two other remarks to make. The first is, that the story does not here use the word 'created,' but expressly implies that the Creator worked through secondary causes; it is, 'Let the earth bring forth.' The second chapter has been often said to contradict this, because it speaks of God creating each plant 'before it grew;' but on the contrary it is exactly consistent with it. It implies that the growth of the plant took place *after* its creation; or in other words, that the Divine energy, working upon the inorganic earth, formed the plants in their simplest stage leaving growth to come afterwards."

"What a reality of meaning you give to the story," said Mr. Lowther. "It is simple enough, and I ought to have seen at least all this before, but I never did."

"It is because people have been half *afraid* to examine into the matter," said Marsden. "Did I not say that if you would take it as a reality, and ponder its statements as each conveying some real meaning, half the difficulty would disappear? But there is one thing more. It is said, each was made *after his kind*. The only possible meaning that I can see in this, is that each form, or species, or genus, whatever you call it, was given the power or property of propagating others *like itself*. And that this has been the law of nature ever since—offspring like parents—I need not stop to prove."

"But how does this agree with your acceptance of Evolution?" said Mr. Moreton.

"Perfectly. Of the transmutation of general forms by *insensible* degrees; or, as Huxley expresses it, 'without a single break,' there is not one solitary example from the oldest rock to the last. Of orderly transmutation by *steps*, demanding some extra power beyond mere outside circumstances, all the strata are full. Most of all are we bound to include some such power, when we consider the grand transitions upwards in the scale which mark the Creative Days. We may, however, finish for to-night, I think. Further difficulty we shall find none."

"I certainly feel none here," said John. "How much I am indebted to you, you cannot tell. My difficulties are practically gone, and I have my Bible again."

"If it is restored to you," said Marsden, gently, "see that in future it speaks to you—that its words have *life*. But other difficulties will arise, some of which you will never solve; be sure of that. Let your experience of these make you patient in judging other people; but for yourself remember to ask, whether it is reasonable to expect such evidence for a Revelation as would really *force* belief in it upon men. Here, also, you may take a lesson from science, and that great doctrine of the Survival of the Fittest, about which we hear so much. What if it be true here also? If the future life of man depend chiefly upon moral considerations, either in fact or in its circumstances, what moral testing power would there be in any revelation that did absolutely compel belief? Now it is at least strange, that this is the very account given of the matter in the New Testament. We are told of some who *judged themselves* unworthy of everlasting life; and the One whom we receive as a true witness is recorded to have said, 'Everyone *that is of the truth* heareth My voice.' What if it be so? and why should it not be so? May there not be in the very difficulties and the possibilities of disbelief offered to us—always supposing they are not actually Divine contradictions of truth or fact—the very best method for that Selection of the Fittest, in which we all believe?"

A hush fell on all round the table. Mr. Lightfoot, in particular, looked grave and thoughtful as Marsden spoke the last words. And the adieus were very quiet and subdued as the little party broke up.

CHAPTER VI.

"I do not think we need occupy much time with the fourth day," said Mr. Marsden; "We have practically discussed it already, and I am anxious to finish to-night if possible. According to the nebular theory, as it is commonly called, the sun would be the very last formed of all the bodies in the solar system; and of course until he was formed, so as to become a centre of vivid light, the moon could not appear, as she depends upon his light for hers."

"I understand that clearly," said John.

"If the stars are similar suns, they may probably enough have been formed during the same period; and whether the verse is meant to say so, or is only a parenthetical clause to state that God is also the Creator of the whole starry system, hardly matters, I only want you to notice again how past difficulties, and bad explanations, simply arose from the imperfection of knowledge. If you read any apologists till lately—Dr. Pye Smith, or Mr. Birks, or Dr. McCausland for instance—they interpret this as meaning that the sky was

only now finally cleared, and the sun and moon visible. Others put it that God now *appointed* them as lights in the heavens, though they had been there before. For such interpretations as this we ought not to wonder if scientific men express scorn; and I would rather, myself, frankly admit that in the course of ages some error may have crept in, as we know errors have in some names and numerals, than resort to such excuses. But you see it was people's science was in fault, not the Bible. I only want to notice besides, that it is very expressly said the sun and moon were appointed, literally, to 'be for signs and seasons, and for days and for years.' Which makes it absolutely certain that, by the story itself, *our* days now first came into existence—or at least gradually as the sun was defined. We need not spend more time over this, I think."

"No, I am quite satisfied," said John. "And I see again how there is progress from confusion to a clearing-up and revealing."

"We go on then to the fifth day. And here I must ask Mr. Lowther to read us another translation."

From the slip of paper handed him, the clergyman read as follows:—

"And Elohim said, Let the waters bring forth abundantly swarming creatures (*sheretzim*) having life, and let fowls fly on the face of the expanse of heaven. And Elohim *created* great reptiles, (*tanninim*), and every creature having the breath of life that moveth, which the waters brought forth abundantly after their kind, and every winged fowl after his kind. And Elohim saw that it was good. And Elohim blessed them, saying, Be fruitful, and multiply, and fill the waters of the seas, and let fowl multiply in the land. And the evening was and the morning was a fifth day."

"You remember what Professor Huxley says about this.[1] 'The order in which animals should have made their appearance in the stratified rocks should be this: fishes, including the great whale, and birds; after that all varieties of terrestrial animals,' and he adds, 'Nothing can be further from the facts as we find them.' Still further on he cites it as inconsistent with the record, that birds only appear in the Jurassic and Triassic formations. Now I will ask Mr. Lowther to quote from parallel passages other cases which may show the meaning of this word *sheretz* or *sheretzim*."

"That is soon done. The noun itself is related to the verb in the very same verse, translated 'bring forth abundantly,' and there can be no doubt that swarming, or abundant multiplication, is the root meaning. In the eleventh of Leviticus, I find the word several times. Early in the chapter *sheretzim* is used for fishes and other marine creatures without scales. In the 20th verse, with the adjective, flying, it denotes insects, and especially (as afterwards defined) the locust and beetle kind. Further on it is used, with the qualification *sheretzim* (rendered creeping thing) 'of the earth,' for weasels, mice, tortoises, lizards, snails, &c., or at least for animals thus translated, and further on again it seems used for serpents and centipedes. There are other passages in plenty, but this chapter is convenient as giving the meanings together. The word is a general one, which *may* be used for almost all *minor* creatures, but especially such as either spawn or multiply rapidly, and reptiles. In Genesis, the context especially gives it that meaning as at least the predominant one."

"Very well; could there be any much more accurate statement of the case? Again, is it *true* that we ought to find fishes and great whales first? Here is a statement that the beginning of animal life was in the water, among swarming or spawning minor creatures. Is not this precisely accurate?"

"Yes."

"Milton himself translated the word,

'Reptile with spawn abundant,'

so that again Mr. Huxley is by no means fair, even to Milton. But again for the second word. This is another case in which a difficulty was made entirely by imperfect knowledge. The word evidently denotes an aquatic monster of some sort, and as the translators considered the whale the most remarkable, they stuck the whale in. There is much doubt if the Bible says anything about whales anywhere; what is certain is, that this word *tanninim* is in one place used for the crocodile, and again is translated, 'dragon.' In short, the evident meaning is a great aquatic monster, with probably special reference to reptiles. Proceeding upwards from the Palæozoic into the Secondary rocks, is not this identical type of great reptiles precisely the predominant characteristic of the period?"

"Certainly. I never found any difficulty here."

"I suppose not. But lastly, we have birds mentioned here last of all, in both clauses. The word seems to imply winged creatures generally, and may quite fairly be taken to denote the Pterodactyl family of flying reptiles as well. But any way, is not this again exactly correct? and, so far from it being a difficulty that birds are not found before the Triassic and Jurassic rocks, is not this precisely where they *ought* to be found according to our narrative?"

"You are perfectly right. But as I just now said, I never did see any difficulty here."

"But here is a point that is worth special notice. Do you think that classing birds along with reptiles, is a classification that would be at all likely to *occur* to anyone in Moses' time, doing his best to make up a cosmogony of his own according to the best knowledge of his age?"

"Really that never struck me," said Lightfoot. "I begin to suspect I have been a fool. It is a very unlikely thing to have occurred."

"Is it not then extraordinary that we should find these two great groups classed together here? I shall put before you by and bye what seems to me the force of these things. But one thing more. Would Moses again, or anyone else before or after him, of mere human knowledge, have been likely to speak of great aquatic reptiles, or at all events great aquatic monsters, as a peculiar feature of a Creation period?"

"No, you are right again, and I see what you are driving at. It is, however, remarkable how many nations have traces in their traditions of great serpents, or dragons, or such things."

"You must remember we are starting with the supposition of a primitive tradition, which may of course have been handed down with more or less truth or error amongst many other nations, as well as the one we are here concerned with. But all these traditions seem to regard such creatures as exceptional; the remarkable thing here is, that the story should equally lay stress on their size and their *abundance*. But we may, I think, leave the fifth day. We have seen already that the *Sheretzim* will include Professor Huxley's scorpions and cockroaches, and even if necessary some minor terrestrial animals. But there are, I believe, only a few marsupials in the Permian before the Tertiary series; and this Permian is so strangely distorted and broken up, that it is by no means easy to say for certain to which series it ought to belong. It is on the boundary line, as you know."

"Yes," replied John. "We have no difficulty there. In fact, I never did feel any about this part of the story."

"I only need add, then, as already mentioned, that with this animal life we again have, for the first time since the beginning, the word *created*, and we have repeated the formula *after his kind*. These creatures also were so formed as to reproduce their species. And lastly, the origin of this life was again *through* secondary causes, or Divine energy, acting upon matter—the waters 'brought it forth,' or the whole is in the strictest accord with *any* really Theistic theory of Evolution."

[1] See Chapter V.

"Yes, I see all that clearly," said Mr. Moreton. "Conservative as I am, I frankly admit you have made out a good case for your view upon that point."

"We may go on, then, to the sixth day. I do not think we need read either the authorized version or any other translation of it. You all know that the words refer to terrestrial animals, and chiefly to mammalia. The word *Bhemah*, called here 'cattle,' is sometimes used for beasts in general, but is more especially employed in other places to distinguish the herbivorous animals. *Remes*, called 'creeping things,' probably denotes fresh types of *terrestrial* reptiles, including probably the serpents, and the word *hay'th-eretz*, called 'beast of the earth,' literally 'beast of the land,' obviously means carnivorous animals, and is often used elsewhere in that sense. You will see that the three terms are twice used, and in different order. The one may be the order of time, the other, order of rank; but the difference is chiefly interesting as showing that in each day's catalogue we must not be too precise on this point. The day's work is given us; but the story does not, according to these verses, profess to give us the exact order of every detail in the day."

"Yes," said John, "that is evident. And I do not think any of us will ever have found any difficulty in this day's work. I, at least, never did."

"Nor I," said Mr. Lightfoot.

"Another rather singular point is perhaps worth mention, however. You all remember how the word *behemoth* is applied to the hippopotamus; thus giving that immense animal a special prominence as a special representative of the *bhemah*. And you must have noticed how, as gigantic Saurians marked the Secondary period, so gigantic pachydermous animals were a very marked feature of the Tertiary."

"I never did notice it," said John.

"It seems at all events *worth* notice. It is also worth noticing how the geologic record plainly informs us, at least in regard to the two last days, that each type of animals reached a height and development in its special 'day' which was not afterwards maintained. The great reptiles were of a number, size, and perfection of organization which never afterwards appeared. The same is true of the number, size and variety of mammalia. It is obvious that the mammalia would have stood little chance in the world of immense Saurians; and it was equally necessary that the vast number of such powerful beasts should in some measure disappear to make way for man. We can see here order, plan, method, purpose, leading up to Man and preparing for him; but *not* mere blind Law, according to which we should have supposed the largest and most powerful would have survived. And it also shows the reasonableness of supposing that the early vegetation also may have reached a high type."

"Yes; all this is reasonable enough."

"Once more, it is still said 'after his kind,' or these animals reproduced their species. And the word created is *not* used. As regards the text, therefore, we are equally free to believe in a special Creation, or to believe, as I hinted before, that the omission is significant, and that Creative Energy operated upon the pre-existing forms of life, and *raised* from them the higher types. But here I repeat the remark, that to say geology shows us 'no break;' that everything has gone on 'slowly and gradually,' is not the truth, especially of the transition between the Secondary and Tertiary periods. It may be philosophy, but nothing could be more opposed to the evidence. I have already said, that I find no difficulty in accepting Evolution as a process, to *any* extent the facts may ever require; and I simply decline at present to believe in 'gradual transmutation' here, because I can find no sign of it. I do find it to a limited extent in nature, and wherever I find it I believe it. Nay, I am willing to allow largely for induction, and to suppose we may find much more than we now see. But according to present evidence it is not true of, at least, the grand transitions between the main periods of geology. Granted that it is not one vast gap from reptile to mammal, it is still a succession of steps. And the steps are so great, and so sharply marked, as to require special power of a very decided kind to bridge over them."

"I see that," said Mr. Lightfoot. "But—believe me, I do not want to make difficulties, and you have brought me round almost entirely to your way of looking at the matter—have you allowed for the imperfection of the geologic record?"

Marsden smiled, and so did John Whiteley.

"I think even John could answer your question," said the former.

"I would rather you did," said he.

"Very well, then. The case is simply this. The geologic record *is* undoubtedly imperfect in many places, and that is the whole strength of this argument. But as we saw the other day (see chapter III,) when considering this very point, the utmost probable amount of imperfection is not only ludicrously inadequate to fill up these gaps, so that it is the purest assumption and begging of the whole question to account for the gaps in this way; but the gaps *occur in the wrong places*. We may, by great assumptions of this kind, account in some fashion, say for some transitions of mammalian species during the long ages of the Tertiary, or of reptiles in the Secondary; because during these periods on the one hand the transitions are not so great, and on the other we *have* the long ages for our 'natural causes' to work in. But when we come to the vast transition from the reptiles of the Secondary to the mammals of the Tertiary, we have an advance which, on the one hand, it is simply idle to say is really bridged over by the birds and marsupials; and on the other hand, this is just where we have *not* the long periods of time. The time may be long, no doubt, according to our absolute measures of time; but according to all the geologic signs it is quite short in comparison to the Secondary and Tertiary ages themselves. We find steps enough, to understand a Creator using them *as* steps; but we do *not* find steps enough, or time enough, for transmutation by purely natural causes such as we can see round us now. Stretch geologic time how you will, you still have *least* of it just where you want it most."

"I see clearly. Thank you very much. I wish you would some time discuss Darwinism itself more at length, with me, Marsden."

"Perhaps at some other time we may do so, but we must stick to our subject. All I can say now about the matter is to repeat, that Mr. Darwin's later utterances are far more explicit, both in admitting the insufficiency of his former suppositions, and in acknowledging Creative design, than his earlier ones. I could justify this by ample quotations; and the change is very significant, and much resented by some of his disciples. But we must go on to Man. He also is said to have been 'created,' the significance of which we have already noticed, as implying again a *new* element. We need not further discuss that; but there are some other points in what is said that are very remarkable."

"You seem to find remarkable points everywhere," said Mr. Whiteley.

"Ought we not to expect to do so in a narrative like this, if indeed, it have any authority at all? I certainly have pondered the story as one every word of which was worth weighing, and was meant to give its own meaning; and I do not think you will charge me with having given a strained or violent meaning anywhere."

"Certainly not. Mr. Whiteley did not mean that," said Mr. Moreton. "Please go on."

"Well, the first thing to notice is the place of man here. We might have thought he would have had a day to him-

self; but no. He is created after the warm-blooded animals, but in the same period, without a break. I need not remind you how this is in the strictest accordance with what we find in the strata. There once crept in a fashion of making a separate age for man, and calling it the Quarternary; but man is now carried back into the later Tertiary formations, with no geologic break between."

"That is clearly another point of agreement," said Mr. Lowther.

"The next thing—I do not say in the order of the narrative, but I want to leave another point to the last—is this, that man is given an express commission both to replenish the earth and to *subdue* it. Surely I have a right to claim this as Divine authority to inquire into, and to command, or to sum up in one word, to *master* all that science can teach me. Nay, it is my *duty* to do so; and as a reverent student of Nature, I have my direct commission from God. The Atheist may leave science alone if he likes; I cannot. And I may go further still, and say that God here hands over the world, as it were, *to* man; leaves the management of it henceforth, in a subordinate manner, to him; and gives him the power to mould, use, and control these Forces which are all around him. Such fulness of meaning could hardly have been present to the mind of the writer; but is not this also a remarkable coincidence with actual fact?"

No one replied, all were so intensely interested. Marsden therefore went on again:

"One point more, as regards the scientific aspect of the case. We are told that God *rested* after all this work, and it is conveyed all through the Bible that He is resting still. Though He still works in His providence; and by the natural laws which He ordained as fit for their purposes, He is represented as never *yet* having resumed those acts of special direction which we understand by creation. Now science tells us the very same. No geologist can tell us of anything new since man—of a single new species of plant or animal since man came upon the earth. The fact agrees with the Theistic view of Evolution, as the process, or order, or method of an intelligent Will, which from the first regarded Man as the crowning point of all; but it does not agree with Haeckel's and Huxley's. If Evolution, of itself and by itself, apart from a Superintendent, got so far, it ought to have since got further. But it never has; it has stopped at things as they were when man appeared."

"You got here, if I remember, a strong argument for your interpretation of the days," said Mr. Moreton.

"Yes. But lastly, whatever precise meaning we give to the words—and no one supposes actual words were uttered in heaven—the 26th verse distinctly conveys to us that in the creation of Man there was a pre-eminent degree, as it were, of deliberate purpose and design. We are bound to consider in what this lay. Doing so, I cannot help seeing that there was nothing new in a moral nature purely spiritual—angels existed already. The new thing was a moral, spiritual nature—a soul—in combination with *bodily* powers and faculties. I care very little what naturalists may ever find to say about the mere body of man; and I might have noted it as a further point, at least worth remark, that this is stated to have been created *first*, and the soul given afterwards. But there seems a purpose here—a purpose thwarted for a time, as it were, but never lost sight of, and finally carried out triumphantly in the Incarnation. This flesh of ours has its peculiar weaknesses and temptations; but, once victorious over them all, we can conceive of the human soul as being superior to *any* temptations. We know but too well that these passions of earth are *powers* within us; but once let them be turned evermore to good, and they have within them a world of promise. We see something of this idea in the Greek Hercules: what a *man*, and yet what a hero he was; and the Bible heroes are no namby-pamby creatures any more than he. To rule oneself—who is sufficient for it? but if spirit, and soul, and body shall ever be subdued wholly and entirely to their rightful Lord, then it seems to me the ruler of himself will indeed be fit to rule *anything* else God shall see fit to put under him."

"I think you are right," said Mr. Moreton, thoughtfully, "you have put into words what I have often thought, but never quite been able to express. I am indebted to you for much—very much; and if I can't quite go with you in everything, you will excuse an old man. I am quite sorry we have come to the end."

"So am I," said Mr. Lowther. "In fact, we all are, and I wish we could hear more from you on some other points which have been great difficulties to most of us."

"I cannot solve all difficulties even for myself," said Marsden "and where I think I can see light, some of my solutions might not be so acceptable to you as my views on this chapter have been. It is sufficient if I have been able to make you feel in any degree that this Bible narrative as yet stands in no need whatever of apology. But before we separate, I want you to get a clear idea, if possible, of what all this implies—of the real strength of the case. You know what is meant by permutations and probabilities in mathematics?"

"I am afraid I do not," said Jean.

"I can soon explain it, if you will take a pencil and a piece of paper. The possible variations in order of any given number of events are got by simply multiplying together all the figures from one up to that number. For instance, take two. Multiply one and two, and you get only two; and so you see on trial that you can only get two events in two possible orders. They must either occur in the order 2, 1, or else, 1, 2. If you have three events, you multiply again by three, and get six; and so you find on trial that you can place three events in any one of the six following orders, reading downwards:—

1	1	2	2	3	3
2	3	1	3	2	1
3	2	3	1	1	2

"Do you understand this?"

"Perfectly."

"You can also see, by thinking a moment, that the probability against the three events happening in any one given order rather than any other, is five to one."[1]

"Yes, I see that."

"Well, we have gone over *six* successive periods. If we reckon them as events, you can see in this way that they may happen in 720 different ways, and the probability against any one in particular is 719 to 1. Besides the six broad periods, however, we have found many most remarkable coincidences which almost deserve to be reckoned as items in the calculation; such as what is said of the rain, for instance. Passing over some of these, however, I have at least a right to reckon as parts of the actual *order* of events, the classing together in one age of animals so apparently different as reptiles and birds; and also the placing of man after, and yet not divided in period from, the mammalian animals. This gives us eight stages; of which the plants of the third day are the only stage which could even *possibly*, in our present state of knowledge, be objected to. I do not know whether you were satisfied about it, John?"

"Yes, quite. In a case like this science must *prove* a contrary case, and you have shown the very strongest probability, if not more, that the story is correct."

"Well, then: the mere 'chances' against these eight events having happened in any precise order, or what is the same thing, of a man having happened to guess their precise or-

[1] Some have said six to one: but this is owing to confusion of thought. It will be seen on reflection that there are but five *other* chances against any one, and that in any case the total chances against must be one less than the total possible orders of succession.

der, are more than *forty thousand to one!* Yet so far as our actual knowledge goes, this order of the story is precisely confirmed in almost every case, and there is a strong probability for the rest. Must we not ask, *How* did this marvelous coincidence come about? Remember, it was no Christian who gained acceptance for the nebular theory and the cosmic light, but the atheist Laplace; it was not theologians who clearly demonstrated light to be motion, but the French mathematicians. I do not want to exaggerate what I have put before you; and I do not say that what I have stated will be accepted by every scientific man; on the contrary, one of the things I wanted to show you was, that there is such a thing as a strong anti-Biblical bias amongst scientific men. One of the very surest signs of this, by the way, is their constant protestation that they are innocent of it; they 'protest too much.' But I have not found it necessary to contradict or even to question one single known scientific fact; and I have tried to show you how some difficulties have been cleared away, and a far more profound agreement between Science and Scripture than was once deemed possible, brought about solely by the growth of scientific knowledge. Years ago such agreement would not have been possible; but the fault was in the then state of science. As science grew difficulties grew, simply because the so-called science of earlier days had been in many points quite mistaken, and *put those mistakes into the Bible.* But now we are really beginning to know a little; now that we have some science worthy of the name, there comes from all quarters one confirmation after another of what we hold dear. From the depths of the earth; from the profoundest researches in physics; from the most beautiful demonstrations in mathematics; even on the star-beams, and in what they reveal to us through the student's prism—from all alike comes proof after proof of the essential truth of this strange old narrative, handed down as I believe for centuries by tradition, until at last committed to writing in the plains of Chaldea."

"It is true," said Mr. Lightfoot, "and I at least am your debtor for more than I can tell."

"I am glad to hear it," said Marsden. "Well; I am not anxious to define Inspiration, and I have myself never been able to see how any merely *verbal* theory in any way helps or adds to the certainty of revealed truth. But in the face of facts like these, I feel that there is *some* kind of inspiration here; and I cannot fling away even Genesis, either as a book containing only moral truth, or as a mere legend fit only for the 'Childhood of Humanity.' I cannot help seeing that, somehow, we have here a real history; *very* real, wonderfully true, and embodying far more than any merely human wisdom of the early ages could possibly have given us. Seeing this, I am willing to wait for some other points to be more cleared up, and to bear with some even insuperable difficulties. I do not know, and I do not care to know, precisely how it came about; but *something* there certainly is here more than I can fathom. I am, therefore, content to stand behind men like Newton, and Faraday, and Young, and Agassiz, and Dana, and Clerk Maxwell; and am neither ashamed to believe, nor to avow my belief, that a revelation which is proved to be so marvellously true in the Beginning, will prove in the main equally worthy of my trust to the end."

What followed is of no interest. With these words the "Conversations on Creation" came to a close.

Lord Houghton says of Lord Beaconsfield's new book "Endymion:" There will, no doubt, be some reproach that this is a political novel without political principles, and a picture of success in life without ethical considerations; but the author may well say that that is his affair. He chooses to depict political life as he has found it, and he leaves it to others to invest it with graver forms, and to draw from it more solemn conclusions. He is the artist, not the political philosopher.

INTRODUCTION to the SCIENCES.

I. NATURE AND SCIENCE.

1. Sensations and Things. All the time that we are awake we are learning by means of our *senses* something about the world in which we live and of which we form a part; we are constantly aware of feeling, or hearing, or smelling, and, unless we happen to be in the dark, of seeing; at intervals we taste. We call the information thus obtained *sensation.*

When we have any of these sensations we commonly say that we feel, or hear, or smell, or see, or taste, something. A certain scent makes us say we smell onions; a certain flavour, that we taste apples; a certain sound, that we hear a carriage; a certain appearance before our eyes, that we see a tree; and we call that which we thus perceive by the aid of our senses a *thing* or an *object.*

2. Causes and Effects. Moreover, we say of all these things, or objects, that they are the *causes* of the sensations in question, and that the sensations are the *effects* of these causes. For example, if we hear a certain sound, we say it is caused by a carriage going along the road, or that it is the effect, or the consequence, of a carriage passing along. If there is a strong smell of burning, we believe it to be the effect of something on fire, and look about anxiously for the cause of the smell. If we see a tree, we believe that there is a thing, or object, which is the cause of that appearance in our field of view.

3. The reason Why. Explanation. In the case of the smell of burning, when we find on looking about, that something actually is on fire, we say indifferently either that we have found out the cause of the smell, or that we know the *reason why* we perceive that smell; or that we have *explained* it. So that to know the reason why of anything, or to explain it, is to know the cause of it. But that which is the cause of one thing is the effect of another. Thus, suppose we find some smouldering straw to be the cause of the smell of burning, we immediately ask what set it on fire, or what is the cause of its burning? Perhaps we find that a lighted lucifer match has been thrown into the straw, and then we say that the lighted match was the cause of the fire. But a lucifer match would not be in that place unless some person had put it there. That is to say, the presence of the lucifer match is an effect produced by somebody as cause. So we ask why did any one put the match there? Was it done carelessly, or did the person who put it there intend to do so? And if so, what was his motive, or the cause which led him to do such a thing? And what was the reason for his having such a motive? It is plain that there is no end to the questions, one arising out of the other, that might be asked in this fashion.

Thus we believe that everything is the effect of something which preceded it as its cause, and that this cause is the effect of something else, and so on, through a chain of causes and effects which goes back as far as we choose to follow it. Anything is said to be explained as soon as we have discovered its cause, or the reason why it exists; the explanation is fuller, if we can find out the cause of that cause; and the further we can trace the chain of causes and effects, the more satisfactory is the explanation. But no explanation of anything can be complete, because human knowledge, at its best, goes but a very little way back towards the beginning of things.

4. Properties and Powers. When a thing is found always to cause a particular effect, we call that effect sometimes a *property*, sometimes a *power* of the thing. Thus the odor of onions is said to be a property of onions, because onions always cause that particular sensation of smell to arise, when they are brought near the nose; lead is said to have the property of heaviness, because it always causes us to have the feeling of weight when we handle it; a stream is

said to have the power to turn a waterwheel, because it causes the waterwheel to turn; and a venomous snake is said to have the power to kill a man, because its bite may cause a man to die. Properties and powers, then, are certain effects caused by the things which are said to possess them.

5. Artificial and Natural Objects. Nature. A great many of the things brought to our knowledge by our senses, such as houses and furniture, carriages and machines, are termed *artificial things* or *objects*, because they have been shaped by the *art* of man; indeed, they are generally said to be made by man. But a far greater number of things owe nothing to the hand of man, and would be just what they are if mankind did not exist,—such as the sky and the clouds; the sun, moon and stars; the sea with its rocks and shingly or sandy shores; the hills and dales of the land; and all wild plants and animals. Things of this kind are termed *natural objects*, and to the whole of them we give the name of *Nature*.

6. Artificial Things are only Natural Things shaped and brought together or separated by Men. Although this distinction between *nature* and *art*, between *natural* and *artificial* things, is very easily made and very convenient, it is needful to remember that, in the long run, we owe everything to nature; that even those artificial objects which we commonly say are made by men, are only natural objects shaped and moved by men; and that, in the sense of *creating*, that is to say, of causing something to exist which did not exist in some other shape before, man can make nothing whatever. Moreover, we must recollect that what men do in the way of shaping and bringing together or separating natural objects, is done in virtue of the powers which they themselves possess as natural objects.

Artificial things, are, in fact, all produced by the action of that part of nature which we call mankind, upon the rest.

We talk of "making" a box, and rightly enough, if we mean only that we have shaped the pieces of wood and nailed them together; but the wood is a natural object and so is the iron of the nails. A watch is "made" of the natural objects gold and other metals, sand, soda, rubies, brought together, and shaped in various ways; a coat is "made" of the natural object, wool; and a frock of the natural objects, cotton or silk. Moreover, the men who make all these things are natural objects.

Carpenters, builders, shoemakers, and all other artisans and artists, are persons who have learned so much of the powers and properties of certain natural objects, and of the chain of causes and effects in nature, as enables them to shape and put together those natural objects, so as to make them useful to man.

A carpenter could not, as we say, "make" a chair unless he knew something of the properties and powers of wood; a blacksmith could not "make" a horseshoe unless he knew that it is a property of iron to become soft and easily hammered into shape when it is made red-hot; a brickmaker must know many of the properties of clay; and a plumber could not do his work unless he knew that lead has the properties of softness and flexibility, and that a moderate heat causes it to melt.

So that the practice of every art implies a certain knowledge of natural causes and effects; and the improvement of the arts depends upon our learning more and more of the properties and powers of natural objects, and discovering how to turn the properties and powers of things and the connections of cause and effect among them to our own advantage.

7. Many Objects and Chains of Causes and Effects in Nature are out of our reach. Among natural objects, as we have seen, there are some that we can get hold of and turn to account. But all the greatest things in nature and the links of cause and effect which connect them, are utterly beyond our reach. The sun rises and sets; the moon and the stars move through the sky; fine weather and storms, cold and heat, alternate. The sea changes from violent disturbance to glassy calm, as the winds sweep over it with varying strength or die away; innumerable plants and animals come in being and vanish again, without our being able to exert the slightest influence on the majestic procession of the series of great natural events. Hurricanes ravage one spot; earthquakes destroy another; volcanic eruptions lay waste a third. A fine season scatters wealth and abundance here, and a long drought brings pestilence and famine there. In all such cases, the direct influence of man avails him nothing; and, so long as he is ignorant, he is the mere sport of the greater powers of nature.

8. The Order of Nature: nothing happens by Accident and there is no such thing as Chance. But the first thing that men learned, as soon as they began to study nature carefully, was that some events take place in regular order and that some causes always give rise to the same effects. The sun always rises on one side and sets on the other side of the sky; the changes of the moon follow one another in the same order and with similar intervals; some stars never sink below the horizon of the place in which we live; the seasons are more or less regular; water always flows down-hill; fire always burns; plants grow up from seed and yield seed, from which like plants grow up again; animals are born, grow, reach maturity, and die, age after age, in the same way. Thus the notion of an *order of nature* and of a fixity in the relation of cause and effect between things gradually entered the minds of men. So far as such order prevailed it was felt that things were explained; while the things that could not be explained were said to have come about by *chance*, or to happen by *accident*.

But the more carefully nature has been studied, the more widely has order been found to prevail, while what seemed disorder has proved to be nothing but complexity; until, at present, no one is so foolish as to believe that anything happens by chance, or that there are any real accidents, in the sense of events which have no cause. And if we say that a thing happens by chance, everybody admits that all we really mean is, that we do not know its cause or the reason why that particular thing happens. Chance and accident are only *aliases* of ignorance.

At this present moment, as I look out of my window, it is raining and blowing hard, and the branches of the trees are waving wildly to and fro. It may be that a man has taken shelter under one of these trees; perhaps, if a stronger gust than usual comes, a branch will break, fall upon the man, and seriously hurt him. If that happens it will be called an "accident," and the man will perhaps say that by "chance" he went out, and then "chanced" to take refuge under the tree, and so the "accident" happened. But there is neither chance nor accident in the matter. The storm is the effect of causes operating upon the atmosphere, perhaps hundreds of miles away; every vibration of a leaf is the consequence of the mechanical force of the wind acting on the surface exposed to it; if the bough breaks, it will do so in consequence of the relation between its strength and the force of the wind; if it falls upon the man it will do so in consequence of the action of other definite natural causes; and the position of the man under it is only the last term in a series of causes and effects, which have followed one another in natural order, from that cause, the effect of which was his setting out, to that the effect of which was his stepping under the tree.

But, inasmuch as we are not wise enough to be able to unravel all these long and complicated series of causes and effects which lead to the falling of the branch upon the man, we call such an event an accident.

9. Laws of Nature; Laws are not Causes. When we

have made out by careful and repeated observation that something is always the cause of a certain effect, or that certain events always take place in the same order, we speak of the truth thus discovered as a *law of nature*. Thus it is a law of nature that anything heavy falls to the ground if it is unsupported; it is a law of nature that, under ordinary conditions, lead is soft and heavy, while flint is hard and brittle; because experience shows us that heavy things always do fall if they are unsupported, that, under ordinary conditions lead is always soft and that flint is always hard.

In fact, everything that we know about the powers and properties of natural objects and about the order of nature may properly be termed a law of nature. But it is desirable to remember that which is very often forgotten, that the laws of nature are not the causes of the order of nature, but only our way of stating as much as we have made out of that order. Stones do not fall to the ground in consequence of the law just stated, as people sometimes carelessly say; but the law is a way of asserting that which invariably happens when heavy bodies at the surface of the earth, stones among the rest, are free to move.

The laws of nature are, in fact, in this respect, similar to the laws which men make for the guidance of their conduct towards one another. There are laws about the payment of taxes, and there are laws against stealing or murder. But the law is not the cause of a man's paying his taxes, nor is it the cause of his abstaining from theft and murder. The law is simply a statement of what will happen to a man if he does not pay his taxes, and if he commits theft or murder; and the cause of his paying his taxes, or abstaining from crime (in the absence of any better motive) is the fear of consequences which is the effect of his belief in that statement. A law of man tells what we may expect society will do under certain circumstances; and a law of nature tells us what we may expect natural objects will do under certain circumstances. Each contains information addressed to our intelligence, and except so far as it influences our intelligence, it is merely so much sound or writing.

While there is this much analogy between human and natural laws, however, certain essential differences between the two must not be overlooked. Human law consists of commands addressed to voluntary agents, which they may obey or disobey; and the law is not rendered null and void by being broken. Natural laws, on the other hand, are not commands but assertions respecting the invariable order of nature; and they remain laws only so long as they can be shown to express that order.

Again, human laws have no meaning apart from the existence of human society. Natural laws express the general course of nature, of which human society forms only an insignificant fraction.

10. Knowledge of Nature is the Guide of Practical Conduct. If nothing happens by chance, but everything in nature follows a definite order, and if the laws of nature embody that which we have been able to learn about the order of nature in accurate language, then it becomes very important for us to know as many as we can of these laws of nature, in order that we may guide our conduct by them.

Any man who should attempt to live in a country without reference to the laws of that country would very soon find himself in trouble; and if he were fined, imprisoned, or even hanged, sensible people would probably consider that he had earned his fate by his folly.

In like manner, any one who tries to live upon the face of this earth without attention to the laws of nature will live there for but a very short time, most of which will be passed in exceeding discomfort; a peculiarity of natural laws, as distinguished from those of human enactment, being that they take effect without summons or prosecution. In fact, nobody could live for half a day unless he attended to some of the laws of nature; and thousands of us are dying daily, or living miserably, because men have not yet been sufficiently zealous to learn the code of nature.

It has already been seen that the practice of all our arts and industries depends upon our knowing the properties of natural objects which we can get hold of and put together; and though we may be able to exert no direct control over the greater natural objects and the general succession of causes and effects in nature, yet, if we know the properties and powers of these objects, and the customary order of events, we may elude that which is injurious to us, and profit by that which is favorable.

Thus, though men can nowise alter the seasons or change the process of growth in plants, yet having learned the order of nature in these matters, they make arrangements for sowing and reaping accordingly; they cannot make the wind blow, but when it does blow they take advantage of its known powers and probable direction to sail ships and turn windmills; they cannot arrest the lightning, but they can make it harmless by means of conductors, the construction of which implies a knowledge of some of the laws of that electricity, of which lightning is one of the manifestations. Forewarned is forearmed, says the proverb; and knowledge of the laws of nature is forewarning of that which we may expect to happen, when we have to deal with natural objects.

11. Science: the Knowledge of the Laws of Nature obtained by Observation, Experience, and Reasoning. No line can be drawn between common knowledge of things and scientific knowledge; nor between common reasoning and scientific reasoning. In strictness all accurate knowledge is *Science;* and all exact reasoning is scientific reasoning. The method of *observation* and *experiment* by which such great results are obtained in science, is identically the same as that which is employed by every one, every day of his life, but refined and rendered precise. If a child acquires a new toy, he observes its characters and experiments upon its properties; and we are all of us constantly making observations and experiments upon one thing or another.

But those who have never tried to observe accurately will be surprised to find how difficult a business it is. There is not one person in a hundred who can describe the commonest occurrence with even an approach to accuracy. That is to say, either he will omit something which did occur, and which is of importance; or he will imply or suggest the occurrence of something which he did not actually observe, but which he unconsciously infers must have happened. When two truthful witnesses contradict one another in a court of justice, it usually turns out that one or other, or sometimes both, are confounding their inferences from what they saw with that which they actually saw. A swears that B picked his pocket. It turns out that all that A really knows is that he felt a hand in his pocket when B was close to him; and that B was not the thief, but C, whom A did not observe. Untrained observers mix up together their inferences from what they see with that which they actually see in the most wonderful way; and even experienced and careful observers are in constant danger of falling into the same error.

Scientific observation is such as is at once full, precise, and free from unconscious inference.

Experiment is the observation of that which happens when we intentionally bring natural objects together, or separate them, or in any way change the conditions under which they are placed. Scientific experiment, therefore, is scientific observation performed under accurately known artificial conditions.

It is a matter of common observation that water sometimes freezes. The observation becomes scientific when we ascertain under what exact conditions the change of water into ice takes place. The commonest experiments

tells us that wood floats in water. Scientific experiment shows that, in floating, it displaces its own weight of the water.

Scientific *reasoning* differs from ordinary reasoning in just the same way as scientific observation and experiment differ from ordinary observation and experiment—that is to say, it strives to be accurate; and it is just as hard to reason accurately as it is to observe accurately.

In scientific reasoning general rules are collected from the observation of many particular cases; and, when these general rules are established, conclusions are deduced from them, just as in every-day life. If a boy says that "marbles are hard," he has drawn a conclusion as to marbles in general from the marbles he happens to have seen and felt, and has reasoned in that mode which is technically termed *induction*. If he declines to try to break a marble with his teeth, it is because he consciously, or unconsciously, performs the converse operation of *deduction* from the general rule "marbles are too hard to break with one's teeth."

You will learn more about the process of reasoning when you study *Logic* which treats of that subject in full. At present, it is sufficient to know that the laws of nature are the general rules respecting the behavior of natural objects, which have been collected from innumerable observations and experiments; or, in other words, that they are inductions from those observations and experiments. The practical and theoretical results of science are the products of deductive reasoning from these general rules.

Thus science and common sense are not opposed, as people sometimes fancy them to be, but science is perfected common sense. Scientific reasoning is simply very careful common reasoning, and common knowledge grows into scientific knowledge as it becomes more and more exact and complete.

The way to science then lies through common knowledge; we must extend that knowledge by careful observation and experiment, and learn how to state the results of our investigations accurately, in general rules or laws of nature; finally, we must learn how to reason accurately from these rules, and thus arrive at rational explanations of natural phenomena, which may suffice for our guidance in life.

II. MATERIAL OBJECTS.—A. MINERAL BODIES.

12. The Natural Object Water. One of the commonest of common natural objects is *water*; everybody uses it in one way or another every day; and consequently everybody possesses a store of loose information—of common knowledge—about it. But, in all probability, a great deal of this knowledge has never been attended to by its possessor; and certainly, those who have never tried to learn how much may be known about water, will be ignorant of a great many of its powers and properties and of the laws of nature which it illustrates; and consequently will be unable to account for many things of which the explanation is very easy. So we may as well make a beginning of science by studying water.

13. A Tumbler of Water. Suppose we have a tumbler half-full of water. The tumbler is an artificial object (§ 5); that is to say, certain natural objects have been brought together and heated till they melted into glass, and this glass has been shaped by a workman. The water, on the other hand, is a natural object, which has come from some river, pond or spring; or it may be from a water-butt into which the rain which has fallen on the roof of a house has flowed.

Now the water has a vast number of peculiarities. For example, it is transparent, so that you can see through it; it feels cool; it will quench thirst and dissolve sugar. But these are not the characters which it is most convenient to begin with.

14. Water occupies Space; it offers Resistance; it has Weight; and is able to transfer Motion which it has acquired; it is therefore a form of Matter. The water, we see, fills the cavity of the tumbler for half its height, therefore it occupies that much *space*, or has that bulk or *volume*. If you put the closed end of another tumbler of almost the same size into the first, you will find that when it reaches the water, the latter offers a resistance to its going down, and unless some of the water can get out, the end of the second tumbler will not go in. Any one who falls from a height into water will find that he receives a severe shock when he reaches it. Water therefore offers *resistance*.

If the water is emptied out, the tumbler feels much lighter than it was before; water, therefore, has *weight*.

And, finally, if you throw the water out of the tumbler at any slightly supported object, the water hitting against it would knock it over. That is to say, the water being put in motion is able to *transfer* that motion to something else.

All these *phenomena*, as things which happen in nature are often called, are effects of which water, under the conditions mentioned, is the cause, and they may therefore be said to be properties (§ 4) of water.

All things which occupy space, offer resistance, possess weight and transfer motion to other things when they strike against them, are termed *material substances* or *bodies*, or simply *matter*. Water, therefore, is a kind, or form, of matter.

15. Water is a Liquid. You will easily observe that, though water occupies space, it has no definite shape, but fits itself exactly to the figure of the vessel which holds it. If the tumbler is cylindrical, the contour of the surface of the water will be circular when the tumbler is held vertically, and will change, without the least break or interruption, to more and more of an oval when the tumbler is inclined; and, whatever the shape of the vessel into which you pour it, the sides of the water always exactly fit against the sides of the vessel. If you put your finger into the water you can move it in all directions with scarcely any feeling of obstacle. If you pull your finger out there is no hole left, the water on all sides rushing together to fill up the space that was occupied by the finger. You cannot take up a handful of water, for it runs away between your fingers, and you cannot raise it into a permanent heap. All this shows that the parts of water move upon one another with great ease. The same fact is illustrated if the tumbler is inclined, so that the level of the surface rises above the edge of the tumbler on one side, and the water is therefore to some extent unsupported by the tumbler at this point. The water then *flows* over in a stream and falls to the ground, where it spreads out and runs to the lowest accessible place, or gradually soaks up into crevices.

Nevertheless, although the parts of the water thus loosely slip and slide upon one another, yet they hold together to a certain extent. If the surface of the water is just touched with the finger, a little of it will adhere; and if the finger is then slowly and carefully raised, the adjacent water will be raised up into a slender column which acquires a noticeable length before it breaks. So, in the early morning, after heavy dew, you may see the water upon cabbage-leaves and blades of grass in spherical drops, the parts of which similarly hold together.

Material substances, the parts of which are so movable that they fit themselves exactly to the sides of any vessel which contains them, and which flow when they are not supported, are called *fluids*; and fluids the parts of which do not fly off from one another, but hold together as those of water do, are called *liquids*.

Water therefore is a liquid.

16. Water is almost incompressible. It has been seen

that water, like every other material substance, resists the intrusion of other matter into the place which it occupies. But many things, though they resist, can be easily squeezed or *compressed* into a smaller volume. This, however, is not the case with water, which, like other liquids, is almost *incompressible;* that is to say, an immense pressure is needful to cause its volume to diminish to any appreciable extent. It may seem strange that anything so apparently yielding as water should yet be almost as difficult to squeeze as so much iron; but the apparent yieldingness of water is due to the ease with which it changes its shape; and if water is prevented from changing its shape, it is very difficult to drive its parts closer together. It has been ascertained that if water is confined in a closed space, a pressure amounting to fifteen pounds on the square inch diminishes its volume by only one twenty-thousandth part. Take a common syringe, and having seen that the plug or *piston* fits the *cylinder* of the syringe well, put the nozzle into water and draw the piston up. Then turn the nozzle upwards and push upon the piston till a little of the water squirts out, so as to make sure that the cylinder contains nothing but water. Now put your finger on the opening of the nozzle firmly, so as to stop any water from passing out, and then try to push the piston down. You will find that you cannot make it stir without great force; and, if the piston moves appreciably, it will be because some of the water has escaped by the sides of the piston. In fact, if the piston presented a square inch of surface, and fitted accurately, and the column of water in the cylinder were one inch long, it must be pressed down by a weight of 30,000 pounds (about thirteen tons) to make it move one-tenth of an inch.

17. **The Meaning of Weight.** Let us next consider the property of weight. We say that anything has weight when, on trying to lift it from the ground, or on holding it in the hand, we have a feeling of effort. Or again, if anything which is supported at a certain height above the ground, falls when the support is taken away, we say that it has weight. Now the ground merely means the surface of the earth; and, as all bodies which possess weight fall directly towards the surface of the earth when they are not kept away from it by some support, we may say that all bodies which have weight tend to fall in this way. And it does not matter on what part of the surface of the earth you make the experiment. Rain consists of drops of water, and it does not matter whether we watch a shower in calm weather here, or in New Zealand; the drops fall perpendicularly towards the ground. But we know that the earth is a globe and that New Zealand is at our antipodes, or on the opposite side of the globe to England. Hence if two showers are falling at the same time, one in New Zealand and one here—the drops must be falling in opposite directions, towards one another; that is, towards the centre of the earth which lies between them. In fact, all bodies which have weight tend to fall towards the centre of the earth—that is to say they fall in this way if there is nothing to prevent them; and when we speak of weight we mean this tendency to fall. To call anything heavy, is the same as saying that we fully expect that, if there is nothing to support it, it will fall to the ground; or if we support it ourselves we shall be conscious of effort.

18. **Gravity and Gravitation.** The word *gravity*, when it was first used, had exactly the same meaning as weight; and a body which has weight is said to *gravitate* towards the centre of the earth. But gravity has now acquired a much wider sense than weight. For an immense number of careful observations and experiments have established the general rule, or law of nature, that every material substance tends to approach every other material substance, just in the same way as a drop of rain falls towards the earth; and, in fact, that any two portions of matter, whatever the nature of that matter may be, will move towards one another if there is nothing to prevent them from doing so.

To make this clear, let us suppose that the only material bodies in the universe were two spherical drops of water, each a tenth of an inch in diameter. Each of these drops would have the same bulk as the other, and would be a quantity of matter exactly equivalent to the other. Then, however great the distance which separated these two drops, they would begin to approach one another; and, each moving with gradually increasing swiftness, they would at length meet in a point exactly half-way between the positions which they at first occupied. But if the bulk of one drop were greater than that of the other drop, then the larger would move more slowly, and the point of meeting would be by so much nearer the larger drop. It follows that, if the one body of water were as big as the earth and the other remained of its original size, no bigger than a rain drop—the motion of the large mass towards the small one would be an inconceivably minute fraction of the total distance traveled over. It would appear as if the large body were perfectly still and drew the small body to itself.

This is just what happens when a single drop of water falls from a cloud, say through a distance of a mile, to the earth. The earth really moves towards it, just as it moves towards the earth, on the straight line which joins the centres of the two. But the length of this line which each travels over is *inversely proportional* to the quantity of matter in each, that is to say is the less the bigger the quantity. So that we have a rule-of-three sum. As the quantity of matter in the earth is to that in a rain-drop, so is a mile to the distance traveled over by the earth. And if any one worked out this sum, he would find that the fourth term of the proportion would be an inconceivably minute fraction of an inch. For all practical purposes, therefore, we may consider the earth to be at rest in relation to all falling bodies, inasmuch as the quantity of matter in any falling body is insignificant, in comparison with that contained in the earth.

What is true of water is true, so far as we know, of all kinds of matter, and we therefore say that it is a law of nature that all kinds of matter possess gravity; that is to say, that of any two, each tends to move towards the other, at a speed which is the slower the greater the quantity of matter it contains in proportion to that which the other contains; and this speed gradually becomes quicker as the two bodies approach.

What is usually called the *law of gravitation* is a statement of the same observed facts in another and more complete fashion. (See *Physics Primer.*)

19. **The cause of Weight: Attraction: Force.** We know nothing whatever of the reason why bodies possess weight. Bodies do not fall on account of the law of gravitation (§9); nor does their gravity explain why they fall. Gravity, as we have seen, is only a name for weight, and the law of gravitation is only a statement of *how* bodies approach one another, not *why* they do so.

It is often said that gravitation is *attraction*, and that bodies fall to the earth because the earth attracts them. But the word "attract" simply means to "draw towards," and "attraction" means nothing but drawing towards; and to say, when two bodies move towards one another, that they are "drawn towards" one another, is simply to describe the fact and makes us no whit wiser than we were before. On the contrary, unless we take great care, it may make us a little less wise. For the words "drawing towards" are so closely associated with ropes and hooks and the act of pulling, that we are easily led to fancy the existence of some analogous invisible machinery in the case of mutually attractive bodies.

Again, gravitation is spoken of as a *force;* and as the word force is in very common use, let us try to make out what we mean by it. A man is said to exert force when he pushes or pulls anything so as either to exert pressure upon it or to put it in motion. A wrestler's force is proved by his hug; a bowler's force is shown by the swiftness of motion of the ball.

Force, then, is the name which we give to that which causes or, in the case of pressure, tends to cause, motion. The force of gravity therefore means the cause of the pressure which we feel when bodies which possess gravity are supported by our bodies, and the cause of their movement towards the centre of the earth, when they are free to move. But it is exactly about the cause of these phenomena that we know nothing whatever.

A good deal of mischief is done by the inaccurate use of such words as attraction and force, as if they were the names of things having an existence apart from natural objects, and from the series of causes and effects which are open to our observation; while they are, in reality, merely the names of the unknown causes of certain phenomena. And it is worth while to take pains to get clear ideas on this head at the outset of the study of science.

Let us remember then that, so far as we know, it is a law of nature, that any two material bodies, if they are free to move, approach one another with gradually increasing swiftness; and that the space over which each travels before the two meet, is inversely proportional to the quantity of matter which it contains. *Attraction of gravitation* is a name for this general fact; *weight* is the name for the fact in the case of terrestrial bodies; *force* is a name which we give to the unknown cause of the fact. The fact is that which it is important to know. The names are of no great consequence so long as we recollect that they are merely names and not things.

20. The Weight of Water is Proportioned to its Bulk. We must next consider, not weight in general, but the weight of water. We say that a tumbler full of water is heavier than an empty tumbler, because the full tumbler gives us a greater feeling of effort when we lift it than the empty tumbler does. The more water there is in the tumbler the greater is the effort. A pail full of water requires still more effort, though the empty pail feels quite light; and, when we come to deal with a large tub full of water, we may be unable to stir it, though the empty tub could be lifted with ease. Thus it seems that the greater the bulk of water the more it weighs, and the less the bulk the less it weighs. But then a single drop of water in the palm of the hand seems to weigh nothing at all. However, this clearly cannot be, for the drop falls to the ground readily, and therefore it must have weight. Moreover, a few thousand drops would fill the tumbler, and if a thousand drops weigh something, each drop must have a thousandth of that weight. The fact is that our feeling of effort is a very rough measure of weight, and does not enable us to compare small weights, or even to perceive them if they are very small. To know anything accurately about weight we must have recourse to an instrument which is contrived for the purpose of measuring weights with precision.

21. The Measuring of Weights. The Balance. Such an instrument is the *balance* or *scales*, which you may see in every grocer's shop. It is composed of a beam which moves easily on a pivot fixed to its middle, and which has a scale-pan attached to each end. So long as both scale-pans are empty the beam is horizontal; but if you put anything which has weight into one, that one goes down and the other rises. If now you either pull or push the empty scale downwards, the beam may be brought into the horizontal position again, and the effort required to bring it into the horizontal position will be the greater, the greater the weight of the body in the opposite scale. An ounce in the one scale is easily raised by the pressure of a finger in the other. A pound requires more effort; ten pounds needs putting out the strength of the arm; to raise fifty pounds involves still more exertion; while a couple of hundred-weight will not be stirred by the strongest push or pull upon the empty scales.

Suppose that, instead of pressing down the empty scale, you put something that has weight into it; then, as soon as this weight is equal to that in the other scale, the beam will become horizontal. In fact, one scale has just as much tendency to move towards the centre of the earth as the other has, and as neither can go down without pulling the other up, they neutralize one another. It comes to the same thing, as if two boys of equal strength were pulling one against the other; so long as the pulls in opposite directions are equal, of course neither boy can stir; while the smallest addition of strength to one enables him to pull the other over.

22. The Weight of the same Bulk or Volume of Water is Constant under the same conditions. Mass. Density. Now let two graduated thin glass measures be put into the two scales, and made to counterpoise one another exactly. Then, if even a single drop of water is put into the one measure the scale will descend, if the balance is a good one; showing that the drop has weight. If the measures are graduated accurately, then whatever volume of water is put into one, an exactly similar volume of the same water must be put into the other to make the beam level. This obviously means that *the same volume of water under the same circumstances always has the same weight.*

In § 18 it was said that bodies tend to move towards one another with a relative velocity[1] which is inversely proportional to the quantity of matter which they contain. But how are we to measure quantity of matter? Is it to be estimated by the space which it occupies; that is, by its volume? or are we to estimate the quantity of matter in a body by its weight? You will soon learn that the volume of all bodies is constantly changing in correspondence with the changes in the pressure exerted by other bodies, but more especially in correspondence with the changes of temperature to which they are subjected; while the weight of the same body, at the same point on the earth's surface, never alters. Hence we may take the weight of a body as a measure of the quantity of matter which it contains; and it follows that, for the same weight, the larger the volume of a body the less matter it contains proportionally to its volume, and the less the volume, the more matter it contains. The proportion of its weight to its volume gives us the *density* of a body.

Now what is true of water is true of all other bodies or material substances. Suppose that one of the measures is emptied and replaced, the beam may be brought to the horizontal position again by means of a piece of lead cut to exactly the right size. The piece of lead will thenceforth furnish an exactly corresponding or equivalent weight for so much water; and pieces of iron or brass, which counterpoise the lead, will also be equivalents of the weight of the water, or of the lead, or of one another. But the pieces of lead, iron, or brass will obviously be of much less volume or bulk than the water which they counterpoise. Hence it follows that the densities of these metals, or the quantity of matter contained in the same volume, must be much greater than in the case of water.

What are called *weights* in commerce are pieces of lead, or iron, or brass exactly equivalent in weight to a certain bulk of water under certain conditions. *An imperial gallon of water thus weighs ten pounds, and therefore an imperial pint weighs a pound and a quarter.*

[TO BE CONTINUED.]

[*End of Required Reading for April.*]

[1] Velocity, or swiftness, is measured by the distance over which a body travels in a given time. Of two bodies, one of which travels through one foot in a second, while the other travels through two feet, the latter has the greater relative velocity.

MEASURES OF TIME.

One of the striking characteristics of man in contrast with the lower animals, is seen in his noticing the flight of time, and in the adoption of certain time measures, by which he regulates all business matters and keeps historic facts from confusion.

The solar day must have been the first natural division of time noticed by man, and has become a universally adopted standard unit of time measure. The solar day is determined by two successive passages of the sun across the meridian of the place of observation. The earth's orbit round the sun is of an elliptical form, having the sun in one of the foci, and the earth's movement is not regular. When passing from aphelion on the point farthest from the sun to perihelion, the point nearest to the sun, it runs fast, and when running from perihelion to aphelion it runs slow and the solar day, therefore, varies at different seasons of the year, and is not a uniform standard of time. The clocks in general use are all regulated to keep mean, not apparent sun time, and will therefore show twelve o'clock sometimes before and sometimes after the time the sun has reached the meridian.

Apparent time was used in France until 1816, and gave great confusion to those who carried watches, and constant trouble to the watchmakers in trying to explain to their vexed customers that it was not the watches, but the sun that was out of time.

The sidereal day is the most perfect measure of time we have. Nearly all the stars are so far distant that the diameter of the earth's orbit, though 183,000,000 miles, is a mere point in space, and gives no parallax or base line from which to measure their distance. Hence we have a distant fixed point by which to determine the time the earth revolves on its axis, and the sidereal day is determined by two consecutive passages of a fixed star across the meridian of observation, or the space of time in which the earth revolves on its axis. No artificial invention for keeping time can be compared with the exactness of this diurnal movement of the earth. It is thought that in 2,500 years the sidereal day has not varied 1-66 part of a second. If the sun were stationary in the heavens the solar and sidereal days would be of equal length; but while the earth is revolving on its axis from west to east, the sun is apparently moving in the same direction, so that when we return to the same meridian from which we started the day before, we do not find the sun there, but nearly one degree to the east of where it was at noon on the day before. The earth has therefore to perform part of a second revolution, requiring nearly four minutes, before we overtake the sun again. This is the reason why the mean solar day is longer than the sidereal day.

The division of time into weeks of seven days is regarded as a memorial of the creation of the world. It is also a convenient subdivision of the lunar month, besides being so nearly an exact equal part of a solar year of 365 days. Many people seem to think the year only contains 52 weeks, and are not aware that it always has 52 weeks and one day, and on leap-year, 52 weeks and two days. At a very early period men must have observed that the seasons changed and after a time repeated themselves. This doubtless led to the formation of the year, and in due time, for convenience, the artificial divisions of time into months, hours, minutes and seconds was made, but at what time and by whom is lost in the faded past.

The first invention for the measure of time of which we have any account, was in Egypt. It was by the use of the gnomon or stylus—a perpendicular pole standing on a smooth plain which had a meridian line marked on it. The time when the shadow was shortest would indicate the summer solstice and the number of days which would elapse until the shadow returned to the same length would be the number of days in the year. This was found to be 365 days and was adopted at an early period as the length of the year—nearly six hours shorter than the true year. This soon threw everything into confusion, as it was soon found the solar year does not contain a whole number of days, but has a fraction of a day over. This fraction has led to a vast amount of trouble and perplexity in the formation of an exact year and in the keeping of true dates. Even now there is no perfect agreement among astronomers about the *exact* length of the solar year. Le Verrein makes it a fraction of a second shorter than any other astronomer of modern or ancient times. It is found that the earth revolves on its axis nearly 365¼ times while it is making one complete revolution round the sun, consequently the solar year upon which the seasons depend contains nearly 365¼ days. It will be seen from this that the difference between a year of 365 days and the year as measured by the sun amounts to one day in every four years; so that in 120 years of 365 days, the seasons would fall back one whole month, and the season for May would be in June, &c. In 720 years the longest days would be in the month of December. But in about 1450 years the season would fall back through the twelve months and would again harmonize with their present arrangement. Julius Cæsar, who was a man of great ability, to remedy this state of things, and to keep the seasons to the same months and to make the solar and civil year correspond, gave command that one day should be added every fourth year to February, making 25 additional days in a hundred years. But the calendar of Julius Cæsar was defective in that the solar year consists of 365 days, 5 hours, 48 minutes, 47 seconds, and not 365 days, 6 hours, as was supposed in his time. This made a difference of eleven minutes in the apparent and true years.

At the council of Nice in the year 325 A. D., uniformity in the keeping of Easter was adopted and the first Sunday after the first full moon next following the vernal equinox was the appointed time. This came on March 21, 325 A. D., at which time the sun reached the equinox. The next year the sun would reach the equinox eleven minutes sooner than the 21st, and this amounted to ten days in 1200 years; that is, in 1582 the sun reached the equinox on March 11th instead of 21st, at which it was in the year 325 A. D. Hence the church was involved in the absurdity of keeping a festival in honor of an event ten days after it had passed. In 1582 Pope Gregory XIII corrected this mistake by ordering that ten days should be omitted from the current year in order to restore the equinox to March 21st, and then gave the rule in respect to leap years, by which nearly correct dates have been kept ever since. The Pope's mandate met with strong opposition from different parts of Europe, but in Romish countries it was soon adopted, and it is said that even inanimate things recognized the Pope's bull and that the blood of St. Januarius which always before liquified on September 19th, (?) changed at once its day of liquifaction to September 9th, thereby obeying the Pope's mandate. It is also stated that a certain twig which had always bloomed on Christmas day, old style, ever after bloomed on Dec. 15 N. S. But England resisted the Papal bull for some time and so did the animals. It was a general superstition, that the moment Christmas began the cattle always fell on their knees in their stables, but notwithstanding the Papal bull they continued to prostrate themselves on Christmas eve, old style. It was not until 1752, that England by an act of Parliament adopted the new style. As 170 years had passed since the adoption of the new style, it was necessary to turn back eleven days. This was done by calling the day after September 2d the 14th. The same Parliament also decreed that Jan. 1st, should be the beginning of the new year, instead of March 25th, as had been before. Whether the British cattle conformed to the new style or not, I have never heard. But the British people rebelled against this Act of Parliament, contending that they had been robbed of eleven days, and pursued and mobbed members of the government, and demanded the restoration of the eleven days.

Russia and the Greek Church generally use the old style. I asked the Prior of the convent of Mount Sinai some years ago when there, to enter his name in a small blank book I had. He complied, and dated it October 11th. It was with us Oct. 23d—showing a difference of 12 days time.

There is also what is called the Platonic or great year. It is caused by the slow movement of the pole of the earth, and may be illustrated by a top as it spins round on the point. The stem of the top will have a circular motion. This circular motion of the pole of the earth is very slow, being only about 50 seconds of space in a year, and requiring about 25,868 years to make a complete revolution. The pole of the earth is at present increasing its distance from the north star, and in about 12,900 years will be about 47 degrees from it, and when the north star is on the meridian it will be in the zenith of the northern part of the United States. But in 28,800 years the pole will have made a complete revolution and will point once more to the north star. If the earth up to that time continues to be a place of human abode, which is extremely doubtful, almost nothing of our time will be left, either in monumental or written records to tell that we lived. The race before that time will have reached a maturity in all respects that will make our knowledge and attainments look puerile and weak. How many such Platonic years will be the measure of the world's life in its present form we cannot tell. The earth rolled on for ages before it became the home of man, and is likely to exist for ages after our race has passed away. All material things are under the law of change. The little flower that blooms by the wayside has its period of life, and fulfills its mission and passes away. The same great law rules the world, giving to the world a little longer period of life, still but a moment when viewed in comparison with eternity.

EDITOR'S OUTLOOK.

To PRESIDENT HAYES history will give much credit. He was conciliatory to men and parties from whom he differed. His policy softened the asperities of our enemies at home and abroad. He gave us one of the purest and best administrations we have had. It inspired the confidence of business men and secured to all branches of business a new degree of prosperity. He is an easy man for General Garfield to follow. They belong to different classes in the same political school. The former is conservative, the latter is aggressive. Nature gave General Garfield a strong mind. The schools gave him a thorough training, and the people of his district elected him to Congress nine times, making about eighteen years that he has served them and his country as a Representative. He has been a diligent student in that best of all schools for a statesman, "active service"—where as a legislator he has built up a good character and a substantial reputation. Few men have had better advantages for developing the qualities so much needed in the high office to which he has been called, and the country is to be congratulated that he made a wise use of them.

A few years since we sat in the gallery of the House of Representatives at Washington with Col. H. W. Blair, of N. H., then a member, now a United States Senator. Garfield walked down the aisle in front of us. "There," said the Col, "is one of the greatest men in Congress. He knows every rope in the Ship of State." That is the secret of his greatness, he is always master of his subject. He is a student, not only of men, and of legislation as it transpires before him, but of books. During his life in Washington he has been a constant visitor at the Congressional Library, spending hours and days conning books. But back of all this there is another cause of power in his life that we have not seen mentioned anywhere. It is this: His home has been in the country—on a farm—it can hardly be called a small village even, away from the dissipating influences and attractions of a large city. His church is composed of a hundred members. Society made no heavy demands on his time. Secret organizations are few in number; boards of trade and frequent public movements were avoided, hence he had the necessary quiet and leisure for study and meditation, and thus he has succeeded in gathering mental strength and developing into greatness, while many other men, of great natural endowments have been attracted to great centres of population, where they have been dominated by fashion and the customs of social life, and decoyed into squandering their opportunities. Why a professional man should hasten to an overcrowded city in his early life and open an office, thinking that here alone lies the royal road to success, is a question that men of all professions may consider with profit.

General Garfield's culture is of the christian type—himself a believer in christianity and its institutions, it is simply paying a debt of gratitude when he throws the influence of his great office, the greatest in the gift of any nation, on the side of the Bible and liberal education. This is his position, taken long ago. The people found him here, and they selected him with all that he is. So that with his faith and religion and Bible, he is a Christian President. A member of a very small body of christians to be sure, but that shows the strength of the man's convictions, while his constant attendance upon the services of his church illustrates his christian manhood. Who would intimate that General Garfield ever identified himself with the Disciple Church for political reasons? The suggestion would provoke a laugh. The truth is, he has used the church as a source of religious strength and power—just as for literary reasons he has used the school and books, and he has obtained a christian culture, and a well furnished mind.

General Garfield's high appreciation of mental culture is best stated in an extract from a speech he delivered at Chautauqua the 9th of last August:

"What shall you do with your leisure? I understand Chautauqua is trying to answer that question, and to open out fields of thought, to open out energies, a largeness of mind, a culture in the better sense, with the varnish scratched off. We are getting over the business of varnishing our native woods, and painting them. We are getting down to the real grain, and finding whatever is best in it and truest in it; and if Chautauqua is helping garnish our people with the native stuff that is in them, rather than with the paint and varnish and gew-gaws of culture, they are doing well." [Applause.]

THE Sunday-school is limited in its range of influence. It deals with but one subject—the subject of religion. It calls for but an hour or two of actual instruction in a week. The recitation is conducted by volunteer teachers under a variety of disadvantages with reference to organization, discipline, regularity of attendance, preparation, and respect for the school-room. To secure the best results in Sabbath-school teaching, the scholar must be under healthful influences during the week. The day-school is of advantage but its requirements are compulsory, its studies imperative, its discipline enforced by authority. The studies of the Sabbath-school are voluntary. If the scholar actually *studies* it must be from the love of the truth. This love must be developed. During the week the mind should be directed to those channels of thought which are in harmony with revealed truth. There must be called into being a healthful appetite for the best truths, and the mind should be disciplined to think and to think deeply. The Sabbath-school is then baptized with a spirit of inquiry and a spirit of earnest study. The better the organization and the more the study, the more thorough and lasting the soul-impressions. The C. L. S. C. joins hands with the Sabbath-school on this line. It educates to voluntary study and self-help. It furnishes subjects for most wholesome thought. It develops a taste for reading that which is true, beautiful and good. It fosters a spirit of inquiry. The mind is occupied during the week with thoughts in harmony with revealed truth. All truth is in harmony with revealed truth, but some truths are more readily recognized as pointing to the Word of God. What, then, will be the influence over their Sabbath-school work, if teacher and scholar are pursuing the course of the C. L. S. C.? This question is not hard to answer. Their minds are filled with good thoughts, their studies are elevating, their aims noble, the themes of their conversation attractive and inspiring. They are doing something for themselves, they become self-reliant, they fall in love with Truth so soon as they have recognized her beauty. They read to profit withal, and to remember and to reproduce. These healthful habits are carried into their Sabbath-school work. They recognize the value of the sacred teachings. They enjoy the search, the acquisition, and the possession of truth. Their reading and conversation, and habits of study influence most favorably younger members of the family. So all are benefitted. Again, all truth illustrates, sets off, adorns the truth of the Word. Those who study the course of the C. L. S. C. are constantly reminded of the gospels. They see how the WORD is the centre of the world of thought. They can illustrate this Word in their teaching and thus inspire their classes with new interest. The teacher acquires a professional spirit, and becomes more firmly grounded in religious doctrines, more earnest, and enthusiastic. These suggestions indicate a few points of connection between the C. L. S. C. and the Sabbath-school, and show it to be a most powerful ally of the latter in destroying error and enthroning truth in the brain and heart of the world.

ONE of the most encouraging religious features of the times is the spirit of unity and harmony which now prevails among the different branches of the Protestant Church. An era of spiritual brotherhood and Christian fellowship has dawned upon the world. The narrowness and exclusiveness which so long dominated the different sects have given place to fraternal intercourse and to concert of action in all departments of Christian work. A truer type of Christianity, and the final prayer of Christ concerning his followers "That they all might be one," is being grandly realized in the spirit of unity and brotherhood manifest in the church universal. Everywhere Zion's watchmen "see eye to eye," and the time foretold by the prophet is now at hand when "Ephraim shall not envy Judah, and Judah shall not vex Ephraim."

Never before in the history of Protestantism has there been a time when its forces presented so united and unbroken a front to all its foes, and were so harmoniously combined in united effort for the success of the common cause. This merging of denominational distinctions and doctrinal disagreements in Christian unity, will do more to impress the world with the truth and reality of Christianity, than all the treatises on Christian evidences that were ever written, and will give a mighty impetus to the cause of Protestantism throughout the earth.

These results are largely due to the influence of the Evangelical Alliance which was organized at London in 1846. The Alliance is not a Church Union, but a Christian Union, and aims to promote fraternal intercourse among the various denominations, and to secure the effective co-operation of all Christians for the evangelization of the world. It is composed of many of the most prominent workers of the various evangelical bodies both in this country and in Europe, and, while it exercises no direct ecclesiastical authority, it nevertheless constitutes a kind of Parliament of Protestantism for the discussion of all questions of interest and importance to the Church at large. Under its auspices the "Week of Prayer" was instituted, which is now annually observed throughout Christendom. As a result of the

sentiments engendered by the Alliance, the great subdivisions of Protestantism are seeking for closer affiliation among themselves which will, doubtless, in time, result in the organic union of these ecclesiastical families. The Pan-Presbyterian Council, which first met in Edinburgh, Scotland, convened at Philadelphia in September last, and has already been instrumental in bringing about a better understanding among the various Presbyterian organizations. An Ecumenical Conference of Methodism is to meet at London during September next in the interest of fraternity and union, and in order to secure more efficient co-operation among the different Methodist bodies, and will doubtless be productive of much good.

The institution of the "Week of Prayer" has also been a valuable means for promoting Christian Union, inasmuch as in many communities the different denominations therein represented are accustomed to unite at that season in religious services, and are thereby brought into "one accord," and thus the spirit of union and Christian fellowship is largely augmented.

In this country the influence of CHAUTAUQUA has been an important factor in promoting fraternal feelings among the churches. At the annual meetings of the Assembly, Christian people of all denominations mingle together in its shady groves, and throng its Amphitheatre and Auditorium; while representatives of all the churches of the land are found upon its platform, and enjoy the largest liberty consistent with Christian courtesy in stating their views. Its catholic motto has ever been "Let there be unity of faith in diversity of opinion." On this ground alone is Christian union possible. Men can never come to think alike in reference to theological matters. Denominational differences will never entirely disappear. But such differences need never be detrimental to a broad, catholic spirit, nor present a barrier to Christian fellowship. The idea of an international system of Sunday-school lessons originated with men deeply interested in Chautauqua, Drs. Vincent and Eggleston and Mr. Jacobs, of Chicago. The adoption of these lessons will have in the future no small influence in unifying the churches. Unity of thought always tends to produce unity of action. Every Sabbath day the whole Church throughout Christendom is engaged in the study of the same portion of the scriptures, and in developing the same lines of religious thought. The results of such harmonious study and thought cannot fail to be productive of still greater harmony of action.

It behooves every Christian to do all that he can in his sphere to promote the cause of Christian union. United Christian effort for the evangelizing of the world will hasten the millennial dawn, and will be productive of an era of Christian progress and triumph hitherto unknown.

IN THE American Department of the recent French Exposition were conspicuously written two quotations from two men whom the world will not soon forget. The one was from the brilliant, original and advanced Frenchman, Montesquieu: "It is in the republican government that there is need of all the power and virtue of education." The other was the advice of George Washington to his countrymen: "Promote as an object of primary importance institutions for the diffusion of knowledge." These men are dead, but the truth and wisdom of such words do not die. Their utterances deserve to be our national mottoes.

It is not a question as to what departments of inquiry our efforts of education should be directed. It is not whether scientific studies should supersede linguistic studies, whether Geology should take the place of Calculus, or German and French supplant Latin and Greek. These matters are all being warmly discussed and well cared for by the school-men of to-day. Nay, but the question of education, and particularly of American education, is how wide shall be its dissemination, how may it be brought to every American home and fireside. Such is the form it assumes from whatever side we view it, political, moral, social or physical. The political demands for popular education in a country like ours are peculiar. It is conceivable, indeed, history has furnished instances of a people grossly ignorant, yet generously and wisely governed by an enlightened ruler. But under republican institutions, where the people themselves are the ruler, where the man at the ballot-box rather than the man at the Capitol is the governor, the question of enlightened government is one of intelligent suffrage. It is said of the German army that every private is a trained soldier, competent in the moment of exigency to assume the command. It ought to be said under such a political system as ours that every voter is a statesman, for to-morrow he is liable to be called to the jury box, to the legislative hall, or to the executive chair. If not called himself it is his high prerogative to say who shall go. We do not expect, nor is it at all necessary that all citizens rise to that profound comprehension of State affairs attained to by a Webster or Gladstone. There is a better statesmanship than this. It is that popular statesmanship where the common voter has his own clear views of political economy, where questions of finance, tariff, internal improvements, and foreign affairs, present not mere vague or vapory ideas to his mind, but are vigorously grasped and fairly understood. When this state of public intelligence shall be reached (and we believe its prophecy is abroad in the land at this hour), the clap-trap of the professional politician will no longer be tolerated. Men will think and act for themselves. The monopoly of power possessed by single men and wielded to the detriment of public interests will be destroyed. The thoughtful, intelligent laborer will scorn to march in the train of the sophistical, unscrupulous leader.

The invention of gunpowder narrowed the wide gulf between the nobleman and the peasant in Europe, for it made the latter as formidable in battle as the former. It was the beginning of that approach to political and social equilibrium that Europe has been making ever since. The increase of popular thought upon political subjects in this country will give us such an equilibrium of political forces as to secure justice to every class and interest of society.

It is not claimed that mere training of the intellect always produces virtuous, patriotic citizens. A man *may* be an intellectual giant, and at the same time a moral pygmy. But certain it is that antecedent to the discharge of the duties of citizenship is the intellectual comprehension of those duties. The relation of popular education to the moral, social and physical interest of society will be discussed at a subsequent time. Nevertheless we believe that knowledge is a step toward wisdom, that the trend of the education of the head is to incline the heart towards purity and justice.

WITHIN the last few years there has been a marked increase in the prevalence of myopia, or nearsightedness, throughout the civilized world. This increase is especially noticeable among those who have been taxed by long courses of study, and who are devoted to literary pursuits, so that in some countries nearly one half of these classes are found to be in a myopic condition. This defect in vision is caused by an abnormal elongation of the eye-ball, causing the rays of light to converge too rapidly to a focus, thus rendering vision more or less indistinct, except at very short distances. The rapid increase of nearsightedness has led to careful and continued investigation in reference to the causes which tend to produce it. The common theory that myopia is the result of hereditary derangement of the organ of vision is proved to be incorrect, as even children, both of whose parents were myopic, were in their early years rarely found to be myopes.

Medical authorities state that the initial cause of this disorder consists in an abnormal thinness or more yielding nature of portions of the investing membranes of the eye, and wherever these conditions already exist short-sightedness is the more readily developed, and hence is more frequently found in families whose ancestors have been myopic. The development of myopia, even in a high degree, among children free from hereditary tendencies is, in this direction, frequently superinduced through overstraining of the eyes in early life. The investigations referred to have proven beyond question that the schools, especially the higher ones, in which the application of the pupils to their studies is more close and continuous, are the brooding places of myopia. Improperly lighted school rooms and imperfect hygienic conditions are the chief factors in its production. The hard straining of the eyes in early life in a badly lighted and illy ventilated school room is detrimental alike to health and sight. Too great care cannot be exercised in reference to arranging rooms for school purposes, so that there may be a sufficiency of light in all portions of the apartment to enable the pupils to pursue their studies with ease. Young children should not be required to study steadily or continuously for a long time, as they cannot do so without detriment. Most cases of myopia are found to be developed between the ages of eight and fifteen, and if children are not required to apply themselves too closely to their studies during this period, and are allowed plenty of out-door exercise, not much danger of incurring this disorder need be apprehended.

THE Nihilists have succeeded at last in assassinating the Czar of all the Russias. It was a cowardly act which will add to the infamy of their organization. Time alone will develop what results will follow this atrocious crime, directly or indirectly, in other governments on the continent. The deed was committed at a time when many of the peoples of Europe are at unrest, socially and politically. England has untold troubles in Ireland and in other directions. France is in the midst of her struggle for a higher civilization. Bismarck is in as much danger from assassination to-day as the Czar was at any time during the ten years previous to his death, and already Alexander III

has received threatening letters, besides considerable advice regarding his future course from unknown and evidently from unfriendly advisers. Society is in a state of fermentation in every great country beyond the sea. A threatened upheaval of a social, political, or ecclesiastical nature, confronts us in almost any direction we choose to turn. But the tragic death of the Czar will be likely to have a wholesome influence. It may effect a reaction of sentiment among the Nihilists themselves, while the friends of good government in Russia and other countries, may be aroused to renewed diligence, that they may stamp out disloyalty as well as crimes against royalty. The assassination of President Lincoln had some such effect as this on the people of our own country. It was a great price but it secured a great blessing.

The Czar was a kind hearted man, a wise ruler, a friend to the oppressed, as is shown by the emancipation of 30,000,000 serfs. He deserved well of his people and the whole world. The promptness with which the United States government, the English Government, and others in the old world sent letters and resolutions of condolence to the authorities at St Petersburg, illustrates how strong was the Czar's hold on the sympathies of the strongest and best nations of the earth.

EDITOR'S NOTE BOOK.

The C. L. S. C. readings as published in THE CHAUTAUQUAN for February and March were so voluminous that we were obliged to print a portion of them in small type. We have changed in this number, and permanently too, back to the large type, for the comfort and accommodation of all who are afflicted with weak eyes.

The lecture by Rev. C. W. Cushing, D. D., announced as a part of the required readings to be published in THE CHAUTAUQUAN for April, will not appear until the July number.

"Political Economy" will be one of the studies in the C. L. S. C. course next year. It will be prepared by a competent author, and published in THE CHAUTAUQUAN.

We would be glad to publish the CHAUTAUQUA ASSEMBLY DAILY HERALD for next August in the form of THE CHAUTAUQUAN, but it is impossible to do this in the woods every morning, and get the paper out on time. We trust the friends who have suggested the change will appreciate our embarrassment. The ASSEMBLY HERALD will be an eight page, forty-eight column paper as in previous years.

The erection of the museum building at Chautauqua before the next Assembly is an assured fact. Mr. Jacob Miller, of Canton, O., has subscribed $2,000; J. J. Vandergrift, of Oil City, $1,000; and another gentleman $1,000. We are expecting other thousands to come from other generous souls. The building, with its numerous curiosities and relics from the Holy Land, and different European nations, will be one of the most attractive and instructive resorts at Chautauqua.

The Counselors of the C. L. S. C. are well located to represent the cosmopolitan character of the organization: Lyman Abbott, D. D., New York City; J. M. Gibson, D. D., London, England; Bishop H. W. Warren, D. D., Atlanta, Ga.; Bishop E. O. Haven, LL. D., San Francisco, Cal.; Prof. C. W. Wilkinson, D. D., Rochester, N. Y. Each man makes a contribution of time and labor in arranging the course of study. The course for next year, which will be announced in due time, will, without doubt, be the most popular of the four years.

Chautauqua was in the line of true succession in 1880. Three old Chautauquans, Revs. H. W. Warren, D. D., John F. Hurst, D. D., and E. O. Haven, LL. D., were elected Bishops in the M. E. Church, and General Garfield, who spent a Sabbath at Chautauqua last August, is now President of the United States. If you have no ambition for a high office—try to get as far as Chautauqua.

In the public schools of Cincinnati the "Memorial Days" adopted by the C. L. S. C., are celebrated as they come round, and the fashion is extending to other towns and cities, and to living authors. The pupils of the West Batavia (Ill.) schools recently celebrated Mr James Russell Lowell's birthday. The poet, when told of it, wrote: "You ask me for a sentiment, and I can find nothing better to say than to bid you remember an incomparably great American, born on the 22d of February, whose noble and stainless character you will do well to study and emulate."

Mr. Longfellow, the other day, sent this little verse to the Columbus school children, who celebrated his birthday:

If any thought of mine, e'er sung or told,
Has ever given delight or consolation,
Ye have repaid me back a thousand-fold
By every friendly sign and salutation.
With compliments and good wishes of
H. W. LONGFELLOW.

A class in Phonography is to be organized at Chautauqua the coming season. Those who covet the best gifts should send in their names. For rapidity, and giving much in little space, this art is superior to the type writer or electric pen. For reporters it is a necessity, for everybody a most valuable accomplishment. Prof. W. D. Bridge, of Massachusetts, will teach the class. We made his acquaintance fifteen years ago, and found him to be a good Phonographer then, and we know that he is now every way competent for the place assigned him at Chautauqua.

It is a pleasure to know that the excellency of thought and plans of work being developed at Chautauqua, are not confined to locality nor country. Whatever of good and helpfulness Chautauqua has is free to all the world. It is gratifying just now to learn that Rev. C. P. Hard, formerly a missionary, now pastor of a flourishing church in Buffalo, N. Y., has been writing a series of twelve articles to the *Bombay Guardian*, India, giving a history of the Chautauqua movement, its plans and outlook. India has need of its inspiration.

April 23rd is "Shakespeare's Day." This date has been chosen because it is the supposed anniversary of the author's birth. Members of the C. L. S. C. will not fail to observe the "Memorial Day" honored by the name of the great Titan of literature. Shakespeare is, by the common consent of mankind, the greatest dramatist, and many critics regard him the greatest writer that the world has produced. His personal history is surrounded by much obscurity. We have only meagre outlines. He is almost as much a mystery as Homer. There is respectable evidence, however, that he was born in the year 1564, in Stratford-upon-Avon, that his father was a substantial yeoman of the occupation of butcher or glover, that when 18 years old he married Anne Hathaway who was eight years his senior, that he soon after went to London, where he connected himself with the theatre, wrote plays, and often appeared upon the stage in the role of his own characters. He wrote in all 37 plays, besides numerous sonnets and minor pieces. His death is supposed to have occurred April 23rd, 1616, exactly 52 years from the date of his birth.

The people of Oil City, Pa., enjoyed a visit on the last Saturday and Sunday in February from the Rev. J. H. Vincent, D.D., and Lewis Miller, Esq., of Akron, Ohio. Marcus Hulings, Esq., a trustee at Chautauqua, and his excellent wife, gave a reception and banquet at their home in honor of these gentlemen. It was largely attended by the ministers and many leading citizens of the city. Chautauqua was toasted, good speeches were made and all present spent a pleasant evening. On Saturday evening Dr. Vincent was introduced to a large audience in Trinity Church by Mr. Miller. He spoke on the "Chautauqua Idea." Among other good things he said this:

"Here is a man with large possibilities in him if he had only been developed when he was young; and I say to him: My friend, I have an idea that because a man is forty years of age he need not give up all hope of being something in the world, for some of the best work done in this world was begun by men after they were forty, and even sixty. I don't like to hear a man say that he is too old when he is forty to start out and cultivate new tastes and powers. What are sixty years compared with eternity? Some of the best things that I have learned in life, which led me to start anew upward to the better life, were learned after I was forty years of age. It sometimes takes a man a great many years to learn a simple lesson. If a man can learn the lesson of simple trustfulness in the divine call, before he is ten years of age he has made a great achievement; but if the man has to wait until forty or fifty brings him face to face with his own nature and teaches him this lesson, who shall say that there are no possibilities for a man after he is forty. If you hear anybody say that the sanitary regulations of Chautauqua are defective tell him he knows nothing about it. There is no healthier spot from north to south, from east to west, than Chautauqua Lake, and no more healthy spot on the lake than Chautauqua itself."

The annual meeting of the TORONTO CENTRAL CIRCLE was held on Tuesday evening, Feb. 15th, 1881, in the lecture room of the Metropolitan Church, and was doubtless the most enthusiastic C. L. S. C. meeting yet held in Canada. The ladies of the Metropolitan Church Circle, had, through their President, the Rev. Dr. Potts, given an invitation to all the members in and adjacent to Toronto to partake of tea, and right royally did they entertain their guests, who gathered to the number of about 120.

The President, Mr. James L. Hughes, so well known to Chautau-

quans, conducted the proceedings. Mr. Emerson Coatsworth, Jr., read a well prepared paper upon the lives of "Cyrus and Alexander," comparing and contrasting these worthies in their characters, soldierly qualities, and statesmanship. An essay upon "Hypatia" was read by Mrs. Lizzie J. Harvie, which, by its discrimination of character, beauty of diction, and devout Christian sentiment, delighted all who heard it. The privilege of criticism was given and freely indulged in by members, somewhat in the manner of the Chautauqua Round Table Conferences. The subject of local circles occupied a good deal of time and attention, and an understanding was arrived at that circles of about adozen members or less should be planted wherever practicable, to meet weekly or fortnightly for real work, such as reviewing carefully the reading done by individual members during the week or fortnight previous.

The meetings of the Central Circle are to be held once in about six weeks at the call of the Executive Committee.

We publish the first installment of Professor Huxley's Introductory Science in this number of THE CHAUTAUQUAN. We are confident that all members of the C. L. S. C. will take great interest and derive much profit from the studies in Physical Science. There is a charm and freshness in scientific studies due in part to the fact that each student has nature's own laboratory and museum at hand. There is no need that we take second-hand the large majority of facts, principles and phenomena with which science deals. It is the business of the student to verify and observe for himself. A little science gained in this way is better than the bare perusal of a science library. Agassiz, Huxley, Tyndal, Dana and every other scientist has each been his own observer. Books are of value to guide us, to give us the experience of others, but are not a substitute for independent work. Nothing better than that from the pen of Professor Huxley, which we publish, can be obtained. It is simple, direct, and contains the latest results. It is a perfect guide-book in the hand of him setting out to travel. It does not touch upon philosophy, miracles, nor religion in any form. Whatever the author's views may be upon these and other subjects, he has given us here what the world concedes him pre-eminently qualified to give, a book of science.

EDITOR'S TABLE.

[Our readers are invited to send us questions of interest to be answered in this department. We specially welcome those which arise from our work in the C. L. S. C. Many are now on our "Table," but must wait their turn to be answered.]

Q. In reading "The Tongue of Fire" I was surprised at the use of the interjection O. It is used several times followed by an exclamation point, which is contrary to the use I have learned. On page 252 it occurs thus: "O! let us only feel that fire in thy message," &c. There are several other instances of the same use in the book. Is there any other good authority for using it thus?

A. Yes. Many modern writers use the one form O, for both direct appeal and in simple exclamation. Macaulay says: "O! Eldon, in whatever sphere thou shine." Webster is authority for both uses.

Q. Dr. Vincent: Will the second volume of "Art of Speech" be one of the text-books for next year?

A. Yes.

Q. Is there any publication giving expense and accommodations for visiting at Chautauqua during the meetings of the Assembly?

A. The only publications are THE CHAUTAUQUAN and THE CHAUTAUQUA ASSEMBLY DAILY HERALD. Of the latter, which is published daily during the Assembly, there will be published an advance number in May containing full information as to expense, accommodations, railroad facilities, programme of meetings, &c., &c. A copy of this May number will be sent to each subscriber of THE CHAUTAUQUAN.

Q. My book of reference while reading the Chautauqua course is Chamber's Encyclopedia, edition of 1861. I have just finished reading the article it contains on ethnology, but it is not altogether satisfactory to me, for the science must have advanced since that date. Will you tell me in what books I will find the latest conclusions on the subject?

A. At least thirty works of superior merit have appeared since the above date. Most of them are by German authors and accessible only to those familiar with the German language. The ethnological works of the English language are mainly London publications. We mention Lubbock's "Pre-historic Times," Wood's "Natural History of Man" and especially two periodicals, the London "Journal of Ethnology," and "Journal of the Anthropological Institute of New York." They can be obtained through any book-dealer.

Q. Will you give the names of the twelve Cæsars?

A. "The twelve Cæsars," so called, were Julius Cæsar, Augustus, Tiberius, Caligula, Claudius, Nero, Galba, Otho, Vitellius, Vespasian, Titus, and Domitian. These succeeded each other in the order named, in the supreme power over the Roman empire. Only the first six had any consanguineous relation. The true line of Cæsars ended with Nero. The latter six wore the name as an imperial title.

Q. What does the word "Aryan" mean?

A. "The word Aryan" means the descendants of Japheth, who are also called Indo-Europeans. The other two great divisions of the human race are the Hamitic and the Semitic peoples. These again are subdivided into other classes, according to the individual fancies or conclusions of differing ethnologists.

Q. I read that the legislature of Arkansas decided that the name of the state should be pronounced "*Ar'kansaw.*" Ought we not to pronounce it so then?

A. Not necessarily. It was formerly so pronounced, but now *Arkan'sas.* Legislatures have no jurisdiction whatever in matters of pronunciation. Pronunciation like language itself is subject to change by the usage of speakers and writers. The human family has never been willing to submit to dictation in matters of speech. Only by slow and silent growth do all such changes come about.

Q. Will you tell me who is the author of the German in the Chautauqua course?

A. Prof. James H. Worman, A. M., of the "Chautauqua School of Languages" and professor of modern languages in the Adelphi Academy, Brooklyn, N. Y.

Q. In your "Editor's Table," I would like to have you inform me what is to be the practical use of reading "Hypatia." After reading many pages I fail to see the point to be gained.

A. We apprehend that the real difficulty with our questioner is his notion of the word *practical.* When we reflect a moment, what is there in the whole range of human inquiry that is *not* practical. The word is too often narrowed down to mean that which lies next the hand, which gets dollars or bread and butter. The truth is, that is practical which in anywise contributes to make us happier, better, wiser; which expands our horizon, enlarges our ideas and capabilities. In this and in much more than this sense is the study of "Hypatia" practical. It is historical in its leading characters and features. It is a tableau of the 5th century at Alexandria. It exhibits the counterpart of the motives, passions and weaknesses found in society to-day. It represents as no other book the conflict of christianity with philosophy, Judaism, paganism, even with the church itself. Is this practical? Is history practical? What "Ivanhoe" is to the time of King Richard in England, "Hypatia" is to the times and scenes amid which it is located.

Q. 'What reason have some for "*supposing*" Melchizedek identical with the patriarch Shem?'

A. 1. A *chronological* one. Melchizedek blessed Abraham in B. C. 1913. Shem died in B. C. 1846. The two names may have been borne by the same person.

2. A *traditionary* one. It was the opinion of the Jews in the days of Jerome, and was afterwards embraced by Luther, Melancthon, Selden, Lightfoot, and many others.

Q. 'On page 153 of the CHAUTAUQUAN for January, in the middle of the first column is, in a parenthesis "(Cf. 22.1.)" Will you please inform me what it means?'

A. Cf. means confer, or compare with.

Q. In reading "Conversations on Creation" by A Layman, I notice that he says in speaking of Prof. Huxley's American address, that parts of it had been altered for English readers; and he goes on to say that he doubts whether such an expression as "gelatinous mass" is fit even for an American audience. Now, Mr. Editor, what I wish to know is this: Are we Americans inferior to the English? Are we not as refined and intelligent as they?

A. We Americans are inferior to nobody. Our average refinement and intelligence is perhaps the highest ever attained by any people. Let us hope that we may rise much higher and go on to perfection. It is very probable, however, that the writer referred to speaks only with reference to the scientific attainments of Englishmen and Americans. In doing so he exhibits that partiality for his own countrymen which Englishmen say that "we Americans" all possess to a very high degree. It is a most commendable feeling, but ought not to be allowed to mislead the judgment. England has many great scientists. So has America. But there is reason to believe that our popular mind is better informed even upon scientific subjects than that of any other people.

The questions and answers on certain portions of the required reading, published in the CHAUTAUQUAN, have called out quite a number of letters, some asking for further explanations.

One member writes: "I cannot see the force of the first question

and answer on life of Cyrus." The question is: "How has the conquest of Cyrus been characterized?" And the answer is: "The starting point of European life." The question and answer are founded upon the "general preface for the Chautauqua edition" of Cyrus and Alexander, written by Rev. Lyman Abbott, in which occurs this sentence: "For any comprehensive knowledge of history some acquaintance with the lives of Cyrus and Alexander is essential; since the conquest of Cyrus has been well characterized as *the starting point of European life*, and the conquest of Alexander prepared the way for that spread of Grecian literature and philosophy which were themselves preparations for the spread of Christianity." It is not the design of these catechisms to criticise statements contained in the required reading books, and for the explanation of the force intended by this question and answer, we make reference to the preceding quotation.

Another member calls attention to the first answer of the catechism on Alexander the Great, in the January number of the CHAUTAUQUAN. As printed, the answer states "he was born 365 B. C." This is an error; the correct date is 356 B. C.

In the questions and answers on Hypatia, printed in the February CHAUTAUQUAN, mention is made of the light-house called the Pharos as one of the Seven Wonders of the World. A member asks for an enumeration of the seven. Authorities differ as to several of them, but those most commonly given are as follows: 1. The Pyramids of Egypt. 2. The Pharos of Alexandria. 3. The Walls and Hanging Gardens of Babylon. 4. The temple of Diana at Ephesus. 5. The Statue of the Olympian Jupiter. 6. The Mausoleum of Artemisia at Halicarnassus. 7. The Colossus at Rhodes.

Several members of the Circle have asked where they can get the book called Fitch on Memory, recommended by Dr. Vincent at the Round Table last summer. The name of the work is "Memory," a lecture for S. S. teachers, by J. G. Fitch. Address, T. Nelson & Son, New York. It is published by the London S. S. Union.

A gentleman in Bridgeport, Conn., writes: In the "Editor's Table" for March, in answer to a question in regard to shorthand, you said the reason "*Phonography*" is not taught in the schools is "the difficulty of acquiring," and the "length of time necessary to obtain," a knowledge of it. As applied to "*Phonography*," your answer was right. But I wish to write of "*Takigrafy*." It is based upon Pitman's Phonography, and omitting all the bad features of that system, retains all that are valuable with many additions.

"Phonography" is available and useful only to the professional reporter. "Takigrafy" is a style of shorthand practical for everybody and adapted to general use in every kind of writing in which longhand is used. Members of the C. L. S. C. would find it especially valuable to use in connection with their studies. It enables me to make complete notes and full memoranda on any subject which I am studying, rapidly, legibly, and without fatigue. After an experience of six years as a writer and teacher of Takigrafy, I can say that it is in every respect practical, reliable and useful; quickly learned, rapidly written and easily read. Takigrafy is already taught in many schools, academies and colleges. Its use is rapidly extending among professional men, business men, and students, and among all classes who desire to do their necessary writing with the least possible expenditure of time and labor.

C. L. S. C. NOTES AND LETTERS.

In so large a family as that of the C. L. S. C., numbering over 20,000, every year death comes to some. The intelligence has recently reached us of the passing away of three of our members, all of whom departed in the possession of an abiding trust in God. We gather the following of their lives from letters that have come to our hands:

Mrs. W. W. Beers, of Rushford, Minn., who to the last day of her busy life kept up with her class with an enthusiasm and perseverance seldom witnessed, through all her prolonged suffering was sustained and soothed by an unfaltering trust, and closed her eyes to all things earthly as trustingly as a child drops into slumber on its mother's bosom. Among her last words were that her studies had been of great profit, as well as pleasure to her, and had served to deepen her interest in the Scriptures and make firmer her faith in their divine inspiration, but she was tired and going to sleep.

Of Miss Minnie S. Brown, Decatur, Ill., one writes: "She was a close and conscientious student of your course, and I could see her mind unfolding day by day in strength and intelligence, as well as her spirit in beauty and purity. Just an hour before the fatal onset of her death stroke her last work of any kind on earth was finishing the reading of one of the monthly CHAUTAUQUANS. She was a consistent member of the Presbyterian Church, and beloved by all who knew her."

Rev. E. E. Condo fell a victim to the terrible cyclone which swept over and destroyed Marshfield town, Missouri. He was pastor of the M. E. Church in that town. He was a member of the C.L. S. C. at the time of his death. He was a noble, rare man.

Letters continue to be received from grateful members for the help the C. L. S. C. is to them in educating and influencing their children, as well as the benefit the course is conferring upon themselves individually. We quote from a number of letters of this character:

A lady from Ohio writes: "I cannot tell how much my reading is doing for me. My day's duties seem so much lighter now, and I am never at a loss for a story to tell the children. I am frequently asked how I can find time for this course of reading, and with my four children. My invariable answer is, 'the more children the more time.' And it really is so; for they frequently get hurt or cross, and want to make me rock them, and I always keep my book within easy reach of my rocking chair. Then, again, I have so much greater incentive to study than before the children came, for the two older ones are in school and are learning very fast, and I know if I would retain their respect, I must keep ahead of them, at least while they are school boys."

Another lady writes: "I am closely confined by my little children the youngest two and a half years old, and an invalid, and I can trust him to no other hand but my own; so I feel all the greater need of constant and assiduous study, both for my personal culture and my children's future good, that when they are older and I can assume a place in society, I may not be rusty and ignorant."

We also quote as follows single sentences from as many different letters: "I am grateful for the opportunity your Circle promises of giving me food for thought, and a systematic course of reading that will not only benefit me, but the children God has given me to rear for Him." "One reason which particularly influences me to join the C. L. S. C. is to keep pace in a measure with my son of eighteen who has just entered the class of 1884 at the university." "My children have read part of the books with me, and the knowledge obtained has been a great help to them in connection with their studies." "I get many things in my reading for my children."

Among the most interesting letters received are those from members who are pursuing the C. L. S. C. course under difficulties that to many would prove wholly discouraging, but who having surmounted all obstacles evince fresh zeal and ardor with every advancement made. We give quotations from a number of letters of this class:

One lady writes: "With home duties and cares it is often at times very hard to apply myself to reading; sometimes I feel discouraged, and at the same time feel sure that application is what is lacking in a large measure. I feel so grateful your society is so firmly established, for I am sure the course of reading must be such a comfort to hundreds and thousands all over the world. I hope to persevere and overcome all obstacles in my way, being sure I shall be richly rewarded."

A minister's wife writes: "I cannot tell how much I enjoy this course. I have no helps here, such as a circle or others taking the course, and with the cares of a housekeeper and a pastor's wife, yet I do find time to read the books, and read a great many of them, and I am wonderfully helped, and feel as if this course was prepared expressly for such as I am. As soon as I read of it I took it up, and although I have sometimes been behind, yet I never for a moment have been discouraged and wanted to give it up, and never expect to be."

A lady member writes: "I read Green's History and Merivale's Rome by rising an hour before the family in the morning. The rest of my reading has been done in the intervals—little minutes snatched from the waste basket of time, or while holding my baby. I have mastered pages of my reading and entertained the little ones, answering questions all the time. I have thus been able to read, and re-read all the books. I hope to get a seal on my heart, if I cannot on my diploma."

A member of the class of 1882 writes: "The report card for April, May and June I leave blank, as I was unable to read anything of any note during the time, owing to the delicate health of my little boy. This fall I have, little by little, by cradle side and in the kitchen, in all times and places, managed to bring up my studies for last year, and am pretty nearly up with this year's studies."

A lady of the class of 1883 says: "I am pursuing the course under great difficulties and am behind in my studies on account of long continued and painful illness in the family. In my close confinement to home and the sick room the C. L. S. C. studies have been a

source of great benefit as well as intense pleasure to me, lifting my mind out of its painful surroundings and giving it something elevating and ennobling to dwell on while I pursue my daily round of wearisome duties. I expect to keep on, and hope that before the commencement of another year I can make up all the studies in which I am behind. THE CHAUTAUQUAN, with its rich freight of good things, is a welcome visitor to our sad home."

THE MISSING LINK

BETWEEN THE "LOOK UP LEGION" AND THE "KINDERGARTEN."

Some six years ago a young New England lady, of good family and well educated, having been unexpectedly thrown upon her own resources, was appointed matron of the Wilson Industrial School, the pioneer mission of New York.

"A Kinder-Garten!" exclaimed Miss Huntington. "What I need is a *Kitchen-Garden*." And so it was called a "Kitchen-Garden."

Having sketched out in her mind her plan, Miss Huntington selected twenty-four little maids from her reserve force, and proceeded to put her scheme into practice.

From homes made repulsive, if not by positive squalor, at least by that utter disregard of domestic comfort which drives men and women to the rum-shop, and children to the comparative luxury of the gutter, the little girls come in their shabby, homely garments to a bright airy room, with its clean, comfortable-looking furniture, hung round with pleasing pictures, and dotted here and there with gay and fragrant flowers—such flowers as they have seen in rare excursions to the Park, where a grey-coated policeman is ready at every turn to pounce upon the longing little hands that would dare pluck them. The Kitchen-Garden is all abloom as a garden should be, and instead of a stern policeman to guard its treasures, a bright-faced, cheery young lady actually invites the children to a nearer acquaintance with these buds and blossoms, about which they know nothing but that they are beautiful and fragrant, and that they feel the happier for seeing and smelling them.

The principle of the system being instruction in the guise of amusement, the lessons are interspersed with games and marches and songs, each of them having some more or less direct bearing on the subject in hand. Every lesson opens with a march played upon a piano by some person, other than the instructor, who will be required to remain at the instrument throughout the whole exercise. As the march strikes up the class enters the room (or falls into line), and bows in unison to the teacher, and after making the circuit of the room, the children take their places and prepare for the lesson.

Beginning with the simplest articles, Lesson Number One comprises exercises with Kinder-Garten sticks, two-and-a-half inches long, by means of which the children are taught various facts connected with wood. The office of the sticks is rather to aid the memory by association than to actually illustrate any practical use to which wood may be put. For instance, with a bundle of sticks in front of each child, the teacher asks a series of questions eliciting such facts as these:—

Coal will not kindle without sticks of wood. Kindling wood should be gathered over night, and placed near the stove or range to dry. Matches are small sticks of wood tipped with brimstone. They should not be struck on the wall, because that will make an ugly black mark; and when burned they should not be thrown on the carpet, but into the grate or some other safe place.

This lesson is then relieved and further pressed home by a simple ditty sung by all the children in unison, a sample verse of which will suffice, for Kitchen-Garden poetry is not always of the highest order,—

"Then about the matches learn
How they're made and how they burn—
Not to scratch them on the wall,
Nor on the carpet let them fall."

"The old town of Anjou," says a recent writer, "was once most remarkable for its folding of linen. It seems a little thing to distinguish a place, but one who witnessed a display of the grand old cabinets of its spacious mansions would be likely to remember it ever afterwards."

The Kitchen-Garden, while it does not aim at the elaborate *lingerie* of the mediæval Anjevins, teaches their accomplishment by means of small pieces of paper representing towels and napkins. Each fold is made simultaneously by the whole class, while the teacher directs and examines, and distributes praise or blame, as either may be deserved, being careful, however, to encourage when praise cannot conscientiously be given. Thus the children are taught to fold napkins for the table, and towels, &c., for ironing, the teacher, of course, pointing out rules to be observed in each operation.

The exercise is brought to a close by a musical game, in which the children form a ring and play at "Waiting on the door." Each in turn, walking round the outside of the circle, rings a little hand-bell behind one of her playmates, who turns and faces the bell-ringer.

"Is Mrs. Brown at home?" inquires the make-believe caller.

"Yes, ma'am: please let me show you to the parlor and I will speak to her."

And so the game goes on, and any one who has watched little girls playing at "making calls" will understand the amusement which those little girls find in this simple game. That the practical use of the lesson is not forgotten as soon as the game breaks up will be evident to any visitor to the Wilson Industrial School at any hour, when he will find himself taking part in a game of "Waiting on the door" with a little maid of some twelve summers, and rehearsing the self-same words that are set down in Miss Huntington's book.

The Second Lesson teaches the art of setting a breakfast-table. As in the first lesson, and, indeed, in all, the class enters the room to the accompaniment of a gay march, each child carrying a plain board about twelve inches square, and two boxes—the one containing a toy set of tin breakfast dishes, coffee-pot, &c.; the other (and smaller one) table-cloth, napkins, knives and forks. At signals given by chords on the piano—and here it may be said that, to insure unity of action, every operation is directed by this means—the children arrange each her little outfit of toys. After the boxes are emptied, and the contents of the larger one placed upon its lid superimposed upon the smaller box (which then does duty for a sideboard) the square board is placed upon the larger box and forms the breakfast-table. Then the cloth is laid and the articles are placed upon it in order.

Knives and forks should be put on first, and knives at the right hand, with their sharp edges turned toward the plate. The coffee-pot should always be scalded before the coffee is put in. This is the sugar-bowl; it should always be filled when taken from the table. The breakfast-plates should always be hot.

These and other necessary precepts are not inculcated in a direct dry way, and in just so many words; but by question and answer and comment, and by associating each individual article, as attention is directed to it, with its particular uses and treatment. In like manner, and in due order, the toys are removed from the table, washed in diminutive wooden bowls, and returned to their boxes, and after a song the lesson closes with a wand-exercise, such as is used in gymnasiums, to the accompaniment of music.

The more difficult art of setting a dinner-table is treated in a later exercise; but it is, of course, so much similar to the breakfast-table lesson as to need no description here.

The necessary and generally imperfectly understood science of bed-making forms the subject of the next exercise. The toys required are a doll's bedstead, about two feet long, and chairs of proportionate size, for every four children. The chairs are for the bed-linen and pillows to be placed upon, for it would never do for our dainty little maids to throw them upon the floor. By precept and example the children are taught how to air the bed, how to dispose the sheets and blankets, and how to make the whole smooth and neat; for, as the song sings—

"Beds made in a hurry,
A fret and a worry,
Are always unhealthy and musty, 'tis sure;
But left for an airing,
Pains-taking and caring,
And one must sleep sweetly, to know it is pure."

The cardinal rules for bed making are here introduced in rhyme, each child repeating one line. The last three lines close the exercise as follows:—

"So now say your prayers; lay aside all your cares,
And rest your small head, for your teacher has said
You're a dear little girl, and can make a nice bed."

As a pendant to bed-making a sweeping lesson is introduced in this session. It opens with a song, the metre of which will suggest to many readers the air to which it is sung in Miss Huntington's classes:—

"Away now swiftly flying,
It is our sweeping day;
For brooms and dusters hieing
To work without delay.
First open shutters wide,
Move little things outside,
Then sweep, sweep, sweep, my little maid,
To make your room so neat.
Then sweep, sweep, sweep, my little maid,
To make your room so neat."

The lesson is followed by a game (accompanied, as usual, by music), in which the toys are the little brooms, each ornamented with a bright ribbon, and skipping-ropes. The games may be of any kind the toys may suggest, and, of course, "skipping" is one of them. Care must be taken, however, that everything be done in strict time, so that the play may not degenerate into a mere romp.

And now we will suppose it is Monday morning, which is washing-day in all well-regulated families. Our Kitchen-Garden class is certainly well-regulated, for here we see four posts, about eighteen inches high, stuck into holes, two at each end of the table, and, stretched from post to post, a clothes-line of string. This is the laundry and drying-ground all in one, and presently the twenty-four little washerwomen enter the room with their washing-tubs and boards and bundles of dolls' clothing. After the usual questions and answers, the class proceeds to wash the clothes "with invisible soap and imperceptible water" to a merry tune:—

"In the tubs so cheerily our little hands must go.
Washing all so merrily, and washing white as snow," &c.

More questions follow, bearing upon the relative treatment of various articles—the order in which they should be washed and the manner in which they should be arranged on the clothes-line; and when all have been taken down the class retires with the washing apparatus, and reappears armed with scrubbing brushes. From washing clothes to scrubbing tables is a natural transition, and with the rythmic accompaniment of their brushes the children sing the "Scrubbing Song:"—

"Scrubbing away at the break of day,
To make our homes look neat;
For a good hard scrub is the very best way
To make all smell so sweet.

Chorus—Then scrub away in your very best way,
With a face so bright and cheerful,
For a cheery face meets much more grace
Than one that is always tearful."

And a "cheery face" is, indeed, one of the characteristics of a Kitchen-Garden class. Cheerfulness is the *genius loci*. The face, voice, and manner of the teacher inspire it; it floats upon the fragrance of the flowers, and is reflected by the brightness of the furniture and the general aspect of the surroundings. Insubordination is almost unknown; but in the rare cases in which it has shown itself the originator of the system, instead of "keeping in" the offender, or giving her an "imposition" (rightly so called), simply forbids the child from coming to Kitchen-Garden for the next lesson—a punishment which has invariably been found effective.

Enough of the details of the method has now been given to show its general working, and it is impossible in so limited a space to do more than this. As has been said, the system was developed slowly, and with infinite thought. The system aims at instruction under the guise of amusement. The pedagogue must be hidden under the bright smile and affectionate nature of the elder sister or playmate. If the disguise be too slight—if, indeed, it be an effort to maintain it—the teacher may count on failure. Only those who have an inborn love for children, and a real sympathy with child-nature, can hope for success. Fortunately these qualities are given to many of those whom we speak of carelessly, but without intentional disrespect, as our women-folk. The bread-winner gives his money to the cause of charity; his wife and daughters and sisters give their time and energy, and by their tender sympathy, bright faces, and gentle manners make the bread of charity sweeter to those who must eat it.

But philanthropy is nothing if not practical, and the most benevolent spirit is but a vain blessing if it incite not to good works. Given the enthusiastic spirit and material on which to work, we must also have the apparatus. And here it was that Miss Huntington met her first great practical difficulty. It would seem reasonable to suppose that in these days, when almost everything is counterfeited in miniature for the amusement of the young—even to the very sea-beach, with whose sands the children love so dearly to build forts to be demolished by the incoming tide—there would be no difficulty in laying hand upon as complete a set of toy utensils for baby-housekeeping as the most exacting teacher could desire. But such was not the case. For her purpose Miss Huntington required that the toys should be in proportion, and yet be large enough to admit of their being exact counterparts of their grown-up prototypes. After a fruitless search at the shops she bearded the toy-makers in their factories, and it was not long before two dozen complete sets of household toys, made to her special order, were displayed in all their brand-new glitter before the astonished eyes of as many children seated at the Kitchen-Garden tables.

In organizing a Kitchen-Garden great care should be taken to have everything in perfect working order, so that no hitch may occur. Children are the acutest of critics—especially town-bred children—and the novelty of their surroundings will not prevent them from seeing and noting anything that is likely to betray the pious fraud that is being practised upon them. While it is not for a moment to be supposed that all reference to the instructive nature of the amusements provided for them should be kept from the children, even if it were possible, yet it is absolutely necessary that they should learn to look upon the exercises as a recreation, and to this end the mechanism should be so perfect, and apparently automatic, as not to suggest that it is mechanism. Many difficulties will arise, and some will appear insurmountable; but as the idea is considered by earnest would-be "Kitchen Gardeners," and the plans thought out, many of the mountains will dwindle down to mole-hills, while the really difficult objects will serve as land-marks to recall the triumphs that have been won.

BOOK NOTICES.

When it was known that a literature was being unearthed from the ruins of Nineveh and other eastern dead cities, and that the key for the decipherment of the Assyrian and Accadian languages had been discovered and the treasures of this fossil literature were being unlocked and interpreted, scholars looked to the publication of translations from the clay monuments which had been awakened from a sleep of three or four thousand years with expectation of results possessing exceptional value to the student of revelation. The Rawlinsons, George Smith, Sayce, Hincks, Oppert, Lenormant, Guyard, Schrader, Delitzsch, Haupt, Hommel, and others in England, France and Germany, have worked enthusiastically and successfully in this field, and the literature which has been given us as the result of their studies is becoming formidable. Grammars, dictionaries, texts, commentaries, and translations are to be had, and the student may learn Assyrian as he would learn the Greek of Homer. A *Society of Biblical Archæology* has published seven volumes of "Transactions," several volumes of "Records of the Past" have appeared, and a school for the study of Assyrian and Egyptian has been organized. George Smith has been called the "curator" of the literary of Assur-bani-pal, a library unearthed on the site of Nineveh. One of his volumes was "The Chaldean Account of the Deluge" published in 1876. So rapid has been the progress made in Assyrian scholarship that a new edition has been found necessary. This has been thoroughly revised and corrected by Prof. A. H. Sayce,(1) and now exhibits the freshest results of studies in this department. The monumental records of the creation, the flood, the Tower of Babel, and other biblical subjects, are here translated, compared, and explained. We have also the great Epic of Izdubar, and fragments more or less complete of several legends and stories. The reader will find much in this volume to strengthen his faith in the Bible record. The work has many illustrations and the mechanical execution is excellent.

Those who read "Johnson's Oriental Religions—China," should by all means read the various works or Dr. Legge, than whom probably a better Chinese scholar is not living. His various translations of Chinese classics, at first with the text for scholars of Chinese, afterward without the text for English readers, accompanied as both are with numerous learned notes on history, language and religion, are invaluable. "The Religions of China,"(2) in four lectures, discusses the indigenous religions, *Confucianism* and *Taoism*, and compares them with Christianity. Some may not have expected in those religions a primitive Monotheism, and a Monotheism is the present state religion of China, but Dr. Legge has presented weighty evidence on this point. The moral teaching of these religions is very pure. Filial piety is the highest morality. Reverence for authorities is all important. The worship of spirits and ancestor worship are treated fairly by Dr. Legge. In this small volume (308 pages, 12 mo.) we may learn much concerning the native religions of the Celestial Empire.

Messrs. Biglow & Main, 76 East Ninth street, New York, have arranged some beautiful anthems for Easter. They also publish an excellent Easter Annual for 1881.

(1) THE CHALDEAN ACCOUNT OF GENESIS. By George Smith. A new edition thoroughly revised and corrected (with additions). By A. H. Sayce. New York, Charles Scribner's Sons, 1881, $3.00

(2) THE RELIGIONS OF CHINA. Confucianism and Taoism described and compared with Christianity. By James Legge. New York, Charles Scribner's Sons, 1881, $1.50.

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